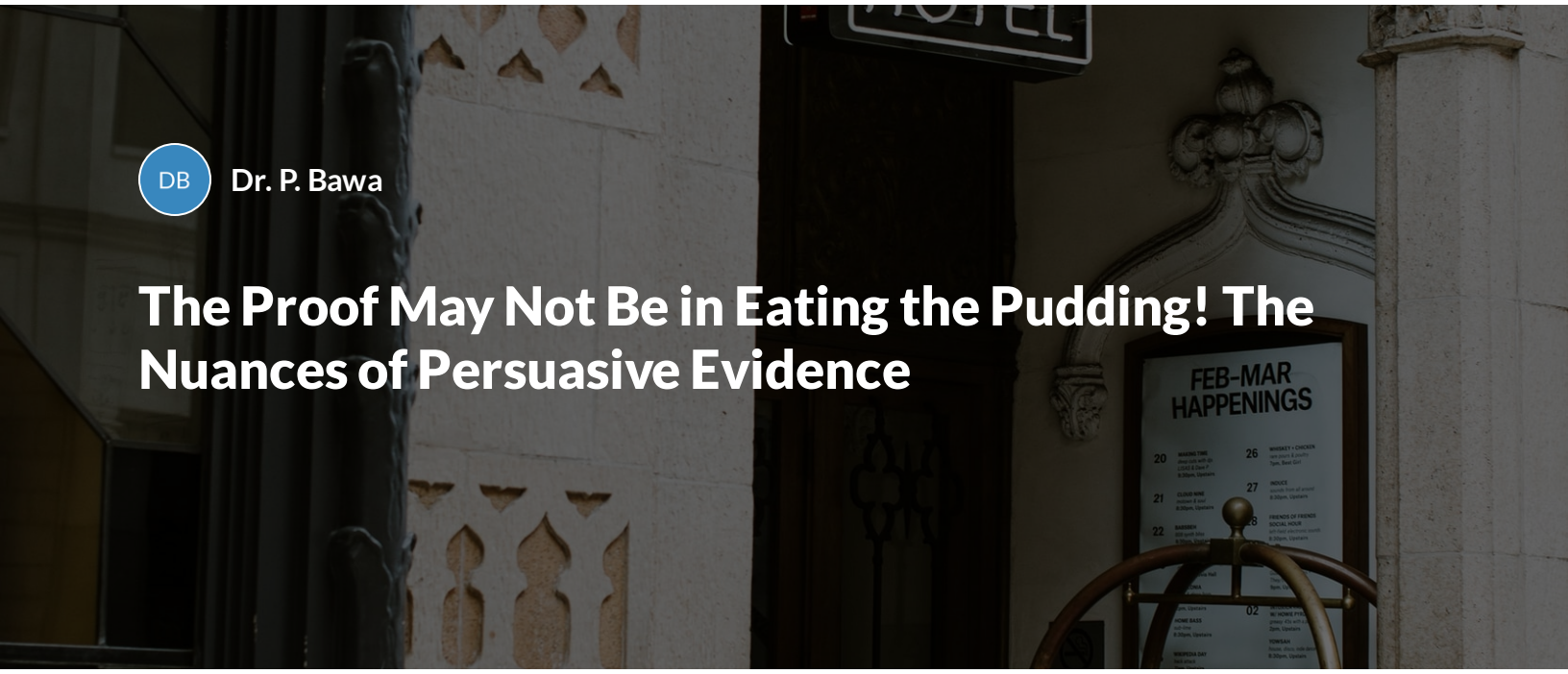


DB Dr. P. Bawa

The Proof May Not Be in Eating the Pudding! The Nuances of Persuasive Evidence

A persuasive argument cannot take place in the absence of proof that supports the writers' claims. In this presentation, you will learn about the value of evidence, types of evidence, checking a source's credibility and citing sources.

Evidence: Primary and Secondary Sources

Establishing Data Credibility

Evidence: Primary and Secondary Sources

DB Dr. P. Bawa

What constitutes evidence in persuasive writing

While a remarkably large number of writers use their personal experiences as the foundation for their writing, experiences alone cannot formulate a compelling argument in a persuasive writing work.

To validate the thinking that you put forward in your claim and sub-claims, you need to demonstrate that your reasoning is not based only on your personal opinion.

Evidence, sometimes referred to as grounds, can take the form of research studies or scholarship, expert opinions, personal examples, observations made by yourself or others, or specific instances that make your reasoning seem sound and believable.

Evidence only "works" if it directly supports your reasoning — and sometimes you must explain how the evidence supports your reasoning (do not assume that a reader can see the connection between evidence and reason that you see).

Evidence Categories

There are 5 evidence categories that are universally used in persuasive writing.

- Statistical Evidence
- Testimonial Evidence

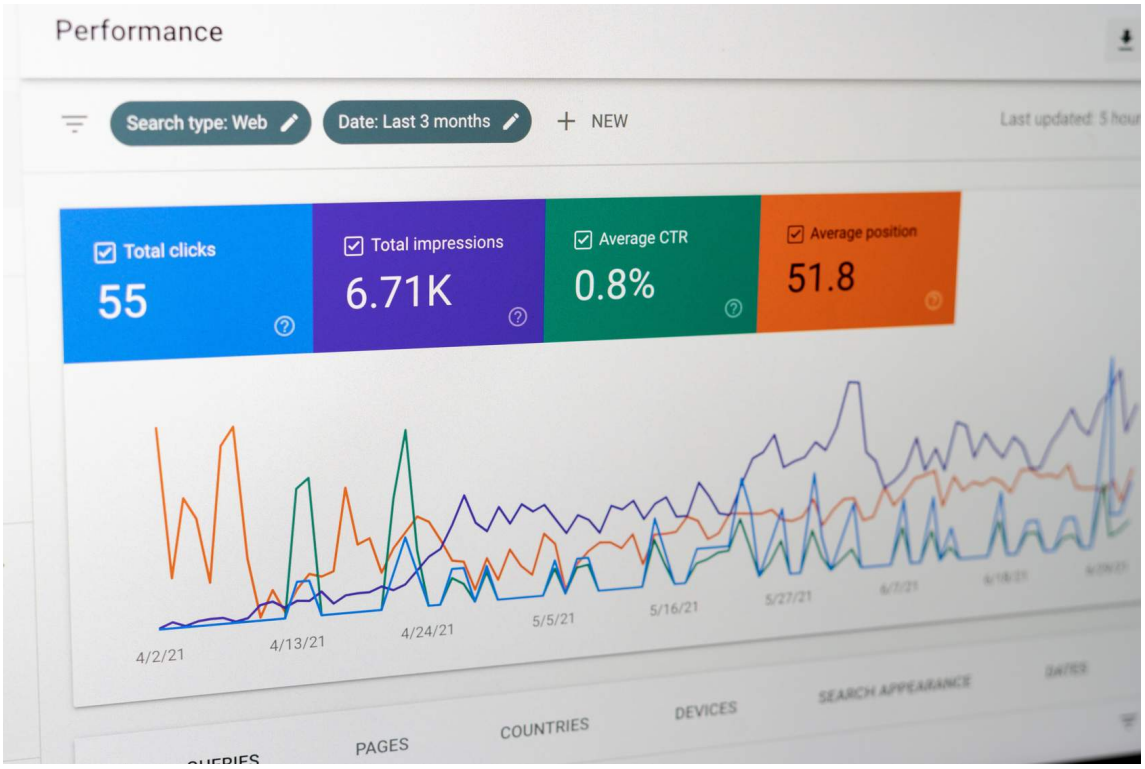
- Anecdotal Evidence
- Analogical Evidence
- Textual Evidence

STATISTICAL EVIDENCE | TESTIMONIAL EVIDENCE | ANECDOTAL EVIDENCE | ANALOGICAL EVIDENCE

Statistical evidence is research and data driven. Every time you use numbers to support a main point, you're relying on statistical evidence to carry your argument.

is a collection of observations that have been organized, validated, and gathered in a way that allows them to be expressed in mathematical form. In other words, it is a summary of the collective opinion or observation of subject-matter experts regarding a specific subject.

Example:
"Even before the pandemic, the global elearning market was already seeing a massive annual global growth. It is expected to reach $336.98 billion by 2026, at a compound annual growth rate (CAGR) of 9.1% from 2018 to 2026" (Syngene Research, 2019)



STATISTICAL EVIDENCE | TESTIMONIAL EVIDENCE | ANECDOTAL EVIDENCE | ANALOGICAL EVIDENCE

Testimonial evidence is another type of evidence that is commonly turned to by people trying to prove a point.

Using spokespersons to testify about an idea, eyewitness accounts, and authoritarian quotes are examples of testimonial evidence.

Just like in a court case, bringing in an expert opinion is a great way to add support for your writing. You should always establish credibility for the expert before using that person's opinion as supporting evidence in your essay.

STATISTICAL EVIDENCE | TESTIMONIAL EVIDENCE | ANECDOTAL EVIDENCE | ANALOGICAL EVIDENCE

Anecdotal evidence is using an anecdote (a short account of a particular incident or event, especially of an interesting or amusing nature) to support a scientific claim. Essentially it is a conclusion drawn from casual observation or personal experiences. **Though they can be powerful means of relating to the audience and may be valid in the context of the persuasion, they are not proof in themselves, and have to be substantiated.**

Therefore, anecdotal evidence should be used in conjunction with other types of support.

Anecdotal evidence should not be confused with primary data gathered from interview narratives where the inferences are drawn looking at multiple factors and not just people's rendition of one incident.

STATISTICAL EVIDENCE | TESTIMONIAL EVIDENCE | ANECDOTAL EVIDENCE | ANALOGICAL EVIDENCE

Analogies are mainly useful when dealing with a topic that is under-researched and we need help with explaining complex concepts to our readers. However, it is considered the weakest of all evidence types if used as a standalone support.

Analogies are comparisons between two things that share many common traits or characteristics. They often use the word like or as when making the comparison.

Analogical evidence is most useful when it serves to help the reader make sense of complicated ideas or concepts. For example, if I am writing a paper on artificial intelligence, and need to explain in a simplified way how an AI replicates knowledge, I could use the analogy of a human learning how to ride a bike.

As humans learn to ride a bike using experience and multiple tries, an AI is, a really good student that learns over time how behaviors and contextual inputs result in progress towards a goal. In our case, with the bike, we may have done that by falling down and scraping our knees over and over. In the case of AI, it's done by running millions upon millions of simulations.

STATISTICAL EVIDENCE | TESTIMONIAL EVIDENCE | ANECDOTAL EVIDENCE | ANALOGICAL EVIDENCE

This type of evidence comes from within the text of the sources you are using to support your ideas.

There are three methods of incorporating the writing of others into your paper as evidence:

- **quotation**, which is anything from a word to several sentences taken word-for-word from the original source and enclosed in quotation marks. Use a quotation if
    - you are relying on the reputation of the writer of the original source to give authority or credibility to your paper.

    - the original wording is so remarkable that paraphrasing would diminish it.

- **paraphrase**, which is a rephrasing of ideas and content from the original source in your own words. Use this if
    - you need to provide a supporting fact or detail, but the original writer's exact words are not crucial for this detail.
    - you need to use just one specific idea from a source and the rest of the source is not as important.

- **summary**, which is shorter than the original source and gives the text's central idea in your own words. Use it if
    - you need to give an overview of a source to orient your reader.
    - you want to provide background that leads up to the point of your paper.

Irrespective of what type of evidence you use, be sure to cite the sources each time you use them.

CONTINUE

Evidence Sources: Primary and Secondary Evidence

While we can draw from multiple sources as evidentiary support for our persuasion, research-based persuasion sources fall under two broad categories: Primary and Secondary.

Primary evidence is what we acquire first-hand and is original in nature (in the context that we gathered them), while secondary evidence is what we use from other scholars and researchers (these works may also be original, but in the context of the authors or creators of the works).

Secondary sources provide second-hand information and commentary from other researchers. Examples include journal articles, reviews, and academic books. A secondary source describes, interprets, or synthesizes primary sources.

Secondary evidence provides an interpretation or analysis of several studies (primary evidence) that share a common focus. This type of evidence is often called 'pre-appraised'. In secondary forms of evidence, experts have selected high quality studies, appraised and compiled the findings, and often commented on their clinical relevance or implications. Pre-appraised evidence uses an explicit, reproducible process to evaluate the scientific merit of its source evidence. It also usually evaluates clinical relevance.

Primary or Empirical Evidence

A primary source, also known as empirical evidence, is information the researcher/writer gathers themselves, using firsthand interactions.

Primary sources for research and persuasion are different from primary sources for literary analysis purposes.

Primary sources are original materials, regardless of format.

Primary sources for persuasion

Evidence in the form of information that verifies the truth (which accurately corresponds to reality) or falsity (inaccuracy) of a claim. Empirical evidence is

information acquired by observation or experimentation, in the form of

Primary sources for literary analysis

- These are a first-hand or contemporary account of an event or topic. They are the most direct evidence of a time or event because they were created by people or things that were there at the time or event. These sources have not

A primary source in persuasion is a document or record, which reports on a study, experiment, trial or research.

Sources of Evidence

Experimental Studies

Controlled or quasi controlled experiments and studies conducted to establish or reject a hypothesis. These may be

- Pilot/prospective studies

- Cohort studies
- Case studies
- Clinical trials and randomized clinical trials/RCTs

Interviews

Interviews involve posing questions and receiving responses from participants in real time, usually in a face-to-face or real time synchronous digital setting. The answers received are used by the researcher to identify supporting evidence for their persuasion.

Surveys

Surveys are used to ask multiple participants to respond to a set of questions on a topic and information is usually gathered through graphs and charts.

Observations

Observations allow researchers to observe and note behavior or dialogue patterns of people in a public or controlled setting.
Examples could be vising a public speech event by a political leader and observing the reactions of the attendees or observing the changes in body language and conversations during an interview.

Scholarly and News Items

Articles taken from credible databases, and news items found online or in text.

Interview Types

Selecting the right type of interview can make a major difference to your information and evidence credibility. There are 4 types of interviews you can choose from.

STRUCTURED | SEMI STRUCTURED | UNSTRUCTURED | FOCUS GROUP

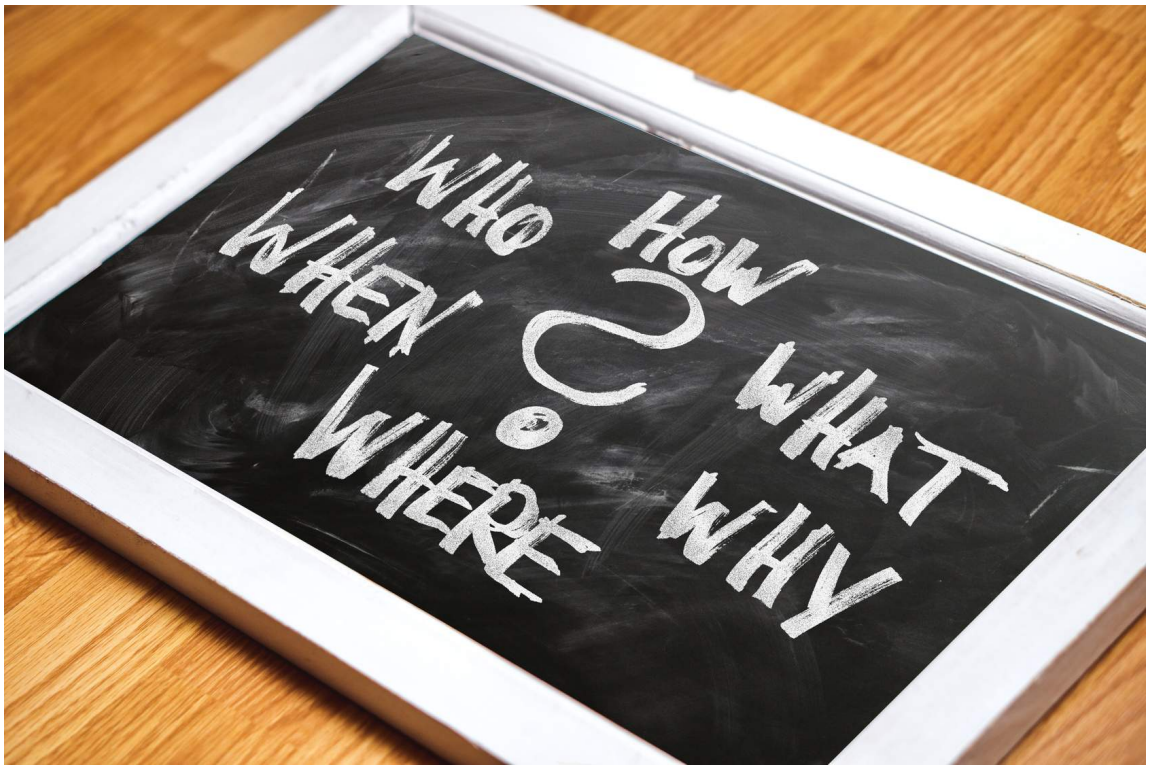
Structured interviews have predetermined questions in a set order.

These interviews are guided by a predefined and very rigorous set of questions to which the interviewers must restrict themselves.

The unique feature of the structured interview is that it can be conducted by different interviewers while ensuring that the answers are all organized and stated in the same form.

Asking set questions in a set order can help you see patterns among responses, and it allows you to easily compare responses between participants while keeping other factors constant. This can mitigate biases and lead to higher reliability and validity.

However, structured interviews can be overly formal, as well as limited in scope and flexibility.



STRUCTURED | SEMI STRUCTURED | UNSTRUCTURED | FOCUS GROUP

Semi-structured interviews are ones where the interviewer starts with a general plan for what they want to ask, but the questions do not have to follow a particular phrasing or order.

Semi-structured interviews are governed by an interview guide, which serves as a framework for the interview. The interviewer can refer to it to contribute to the discussion with the respondent and ensure that the conversation goes in the direction desired and defined by the project.

Semi-structured interviews are often open-ended, allowing for flexibility. However, if the questions differ substantially between participants, it can be challenging to look for patterns, lessening the generalizability and validity of your results.

The aim here is to gather opinions and comments that might not have been detected in the preparation phases, and that will have a definite impact on the continuation of the project.

STRUCTURED | SEMI STRUCTURED | UNSTRUCTURED | FOCUS GROUP

This type of interview is characterized by the complete absence of an interview guide or structure of any kind. The aim here is to take a vast sweep of a given subject. The interviewer may have thought of a few questions or adjacent themes, but no documents are prepared in advance to help him, or her carry out the interview.

This is not for beginner interviewers, since it requires a significantly advanced skill set.

STRUCTURED	SEMI STRUCTURED	UNSTRUCTURED	FOCUS GROUP

A focus group brings together a group of participants to answer questions on a topic of interest in a moderated setting. Focus groups are qualitative in nature and often study the group's dynamic and body language in addition to their answers.

Responses can guide future research on consumer products and services, human behavior, or controversial topics.

Focus groups can provide more nuanced and unfiltered feedback than individual interviews and are easier to organize than experiments or large surveys.

Survey Types

Technically, a survey is a method of gathering and compiling information from a group of people, more often known as the sample, to gain knowledge. This information or opinion collected from the sample is more often generalization of what a large population thinks.

Survey types depend largely on the theme of the survey, while survey sources relate to the medium used to deploy the questions and collect the data.

Types of Surveys

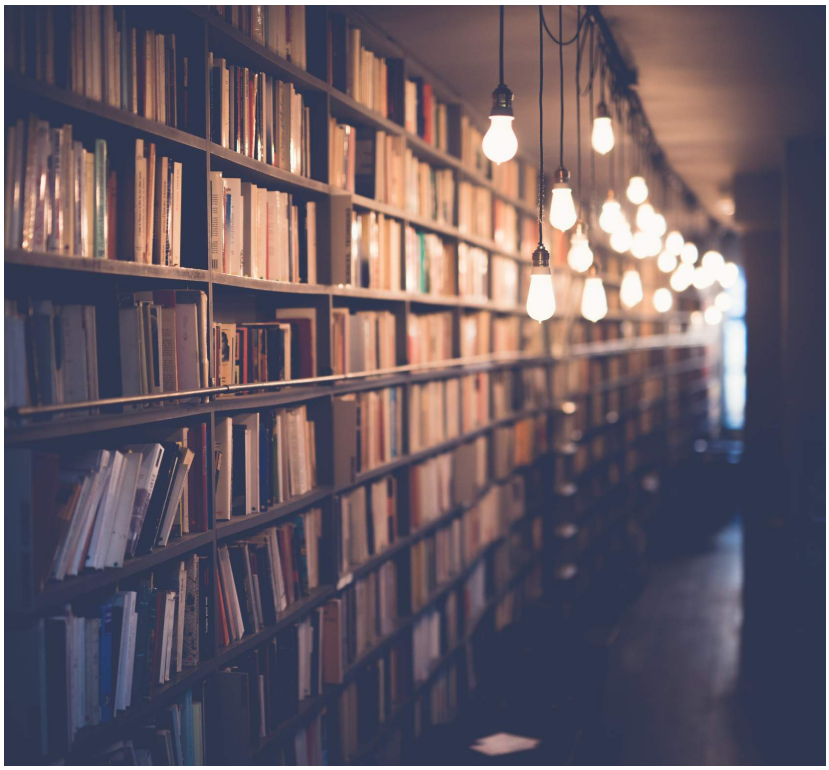
EXPLORATORY	DESCRIPTIVE	CAUSAL

Exploratory research is the process of investigating a problem, usually conducted to have a better understanding of the existing problem.

This is useful when trying to gain familiarity with an existing phenomenon and acquire new insight into it to form a more precise problem. It begins based on a general idea and the outcomes of the research are used to find out related issues with the topic of the research.

Descriptive research is a type of research that describes a population, situation, or phenomenon that is being studied. **It focuses on answering the how, what, when, and where questions If a research problem, rather than the why.**

This is useful for determining the context of a problem or issue, so that writers can have a proper understanding of problem, before investigating why it exists in the first place.



EXPLORATORY | DESCRIPTIVE | CAUSAL

Also called explanatory research, causal research aims to discover whether there is any causality between the relationships of variables.

As such, focuses primarily on cause-and-effect relationships. In this regard, it stands in opposition with descriptive research, which is far broader. Causal research has only two objects:

- Understand which variable are the cause and which are the effect
- Decipher the workings of the relationship between the causal variables, including how they will hammer out the effect.

Sources of Surveys

1. Online surveys send out via engines such as Survey Monkey and Qualtrics
2. Paper surveys where questions are handed out in print format
3. Telephonic surveys where questions are asked using a number of preset responses. Example: You are asked to answer a two-question survey after receiving service from an online vendor or receiving a call regarding participating in a political poll.
4. Kiosk based surveys in which consumers may be asked to select an emoji as a response in a store or service area.
5. Mail-in surveys where questions are sent by regular mail.

6 Pop up surveys where questions appear as a pop up on a website.

Designing Questions

Designing the right kind of interview questions is key to receiving relevant and viable evidence for your claims. A key to generating good data using interviews is selecting the right interviewee for your project. Make sure that you have taken some time to identify why the interviewee is good for your paper and what kind of biases they may have towards your topic. **Below are brief descriptions of some things to watch for when designing questions for primary data.**

Tips on Designing Questions for Interviews and Surveys

Step 1

Open ended versus close ended

Open ended questions allow responders to offer their answers in a narrative format (interviews).

Close ended questions have predetermined sections that respondents use to answer the questions (surveys).

Open ended is useful to understand the why of things and to get a deeper insight on issues from respondents.

Close ended offer generalizability, while allowing for easier data analysis. However, they will not offer unique insights that open ended questions will.

Step 2

Avoid leading questions

A leading question guides the respondent to a desired answer by implying that there is a correct answer or suggesting the correct answer.

People tend to provide socially desirable answers, so if you ask a question that guides them, they will likely provide one that they believe you want to hear.

Thus, such questions reduce the objectivity of the session, and therefore, reduce the reliability of the results.

Example:
Leading: '*Why would you think online learning is a good thing?*
Better: '*What are your thoughts about online learning?*

Example:
Leading: *Would you prefer that your friends and family use online courses due to them being so efficient?*
Better: *Why might your friends and family use online learning?*

In the leading example, it implies that the respondent prefers online learning and is enquiring as to why or that the respondent already believes that online learning is efficient.

To avoid leading questions, act as if you know nothing of the topic. Note down what you would ask if you had no information at all.

Asking about their opinions and thoughts will provide them with a platform to discuss the product freely.

Step 3

Include behavioral and attitudinal questions

People often hold a belief that does not match with their behaviors. Using a mixture of attitudinal and behavioral questions uncovers what a person does, but also their thoughts about their actions.

Attitudinal questions are used to understand their opinions and motivations. Behavioral questions are used to find out how a participant does something. **It is best to utilize a mixture.**

Example:
Attitudinal: *How often should a student log into their online class?*
Behavioral: *How many times do you log into your online class?*

Step 4

Avoid double barreled questions

For interviews, double-barreled questions touch on more than one topic. This can be overwhelming to answer, and respondents may either try to answer both at once or answer only one part of the question. If you want to ask something on multiple topics, it is best to split them into two different questions.

Example:
Double-barreled: *What do you like about coffee and new coffee products?*
Better: *What do you like about coffee products?*

It is best when the questions are short and to the point, focusing on one topic or theme.

Step 5

Avoid questions that can be answered in yes or no

For interviews, ask questions that elicit more than a 'yes' or 'no 'response.

Example: *Do you want to talk about online learning? (avoid)*

vs

Talk to me about your views on online learning. (use)

Step 6

Use response scales

For surveys, response scales capture the direction and intensity of attitudes, providing rich data. In contrast, categorical or binary response options, such as true/false or yes/no response options, generally produce less informative data.

There are several different types of response scales, the most popular being the Likert Type scale. This is a type of psychometric response scale in which responders specify their level of agreement to a statement typically in five points: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.

Example: *Online classes are not for everyone.*

Strongly Agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Summary

Designing and using effective interviews and survey questions can make a key difference in establishing the credibility of your persuasion.

Check Your Knowledge

Useful

Please describe how your experience with stigma has affected your life

Talk to me about the decisions impacted by your experience

How has your experience with stigma affected your daily functioning?

Not so useful

Tell me about how you hate social media due to your stigma

Have you experienced stigma?

Do you agree with the President's decision for student loans?

Establishing Data Credibility

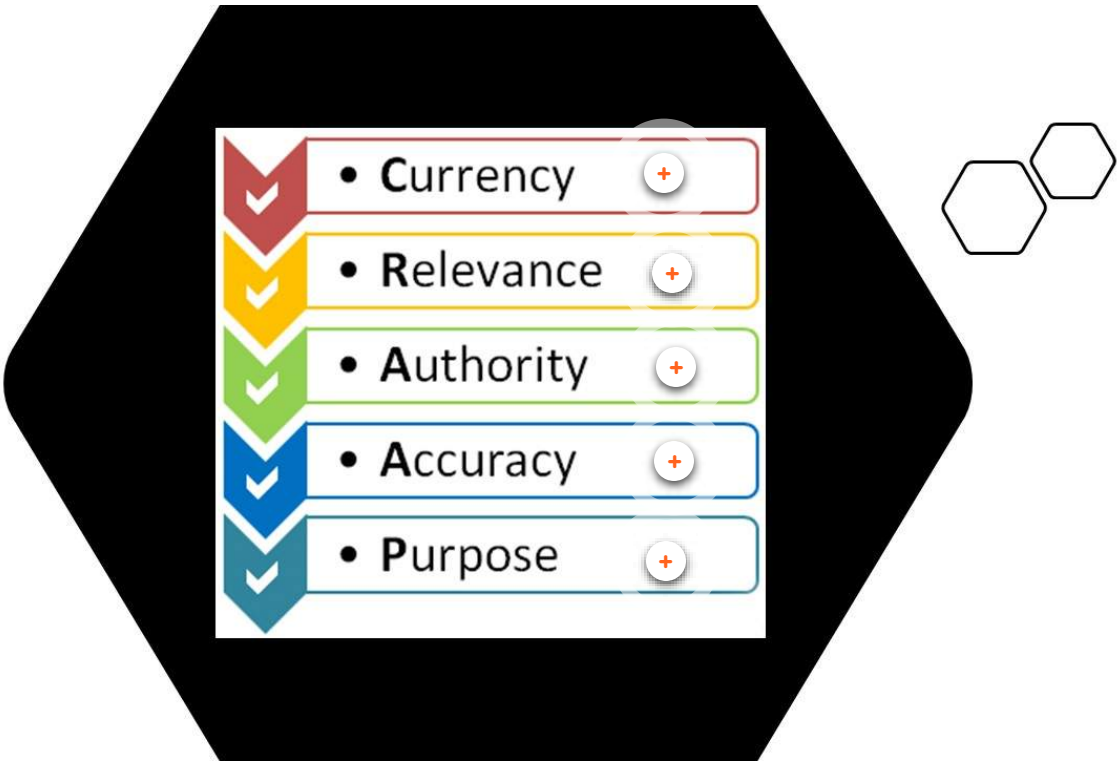
DB Dr. P. Bawa

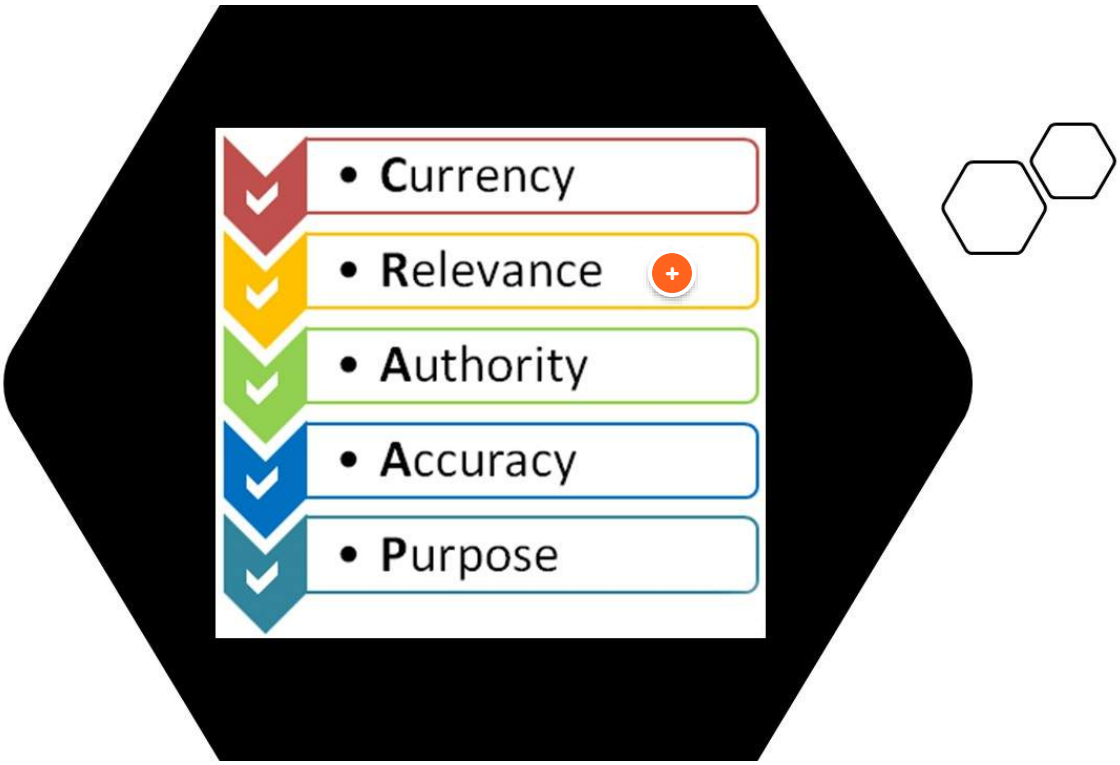
Value of Credibility

Aristotle believed that for a persuasion to be effective, the communicator must be viewed as a person of good character. Credibility is a judgment that the audience makes about how believable the communicator is, and it is important because people often choose to respond to a persuasive message based not on the content but on their perception of the communicator (O'Keefe, 2015).

Credibility is key to persuasion because trust and confidence in the message and the messenger are strongly related to our psychological and biological reactions. According to the Social Judgment Theory (Hovland & Sherif, 1980), human attitudes are cognitively modulated and represented through specific psychological processes involved in assessing persuasive communications, providing the conditions under which communicated attitudes are either accepted or rejected. **Therefore, it is critically important that we check for the veracity and credibility of all our sources that we use to support our persuasion claims.**

Credibility Checking for all sources: The CRAAP Way

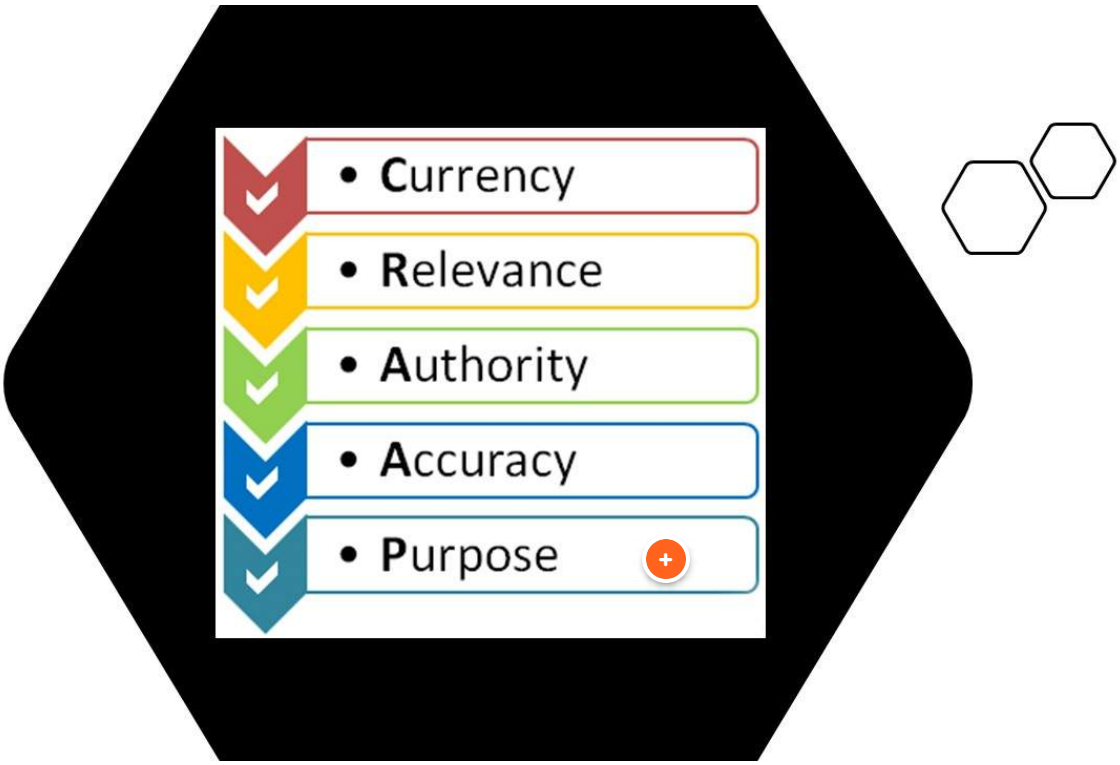




Relevance

The importance and usefulness of the information to your needs.

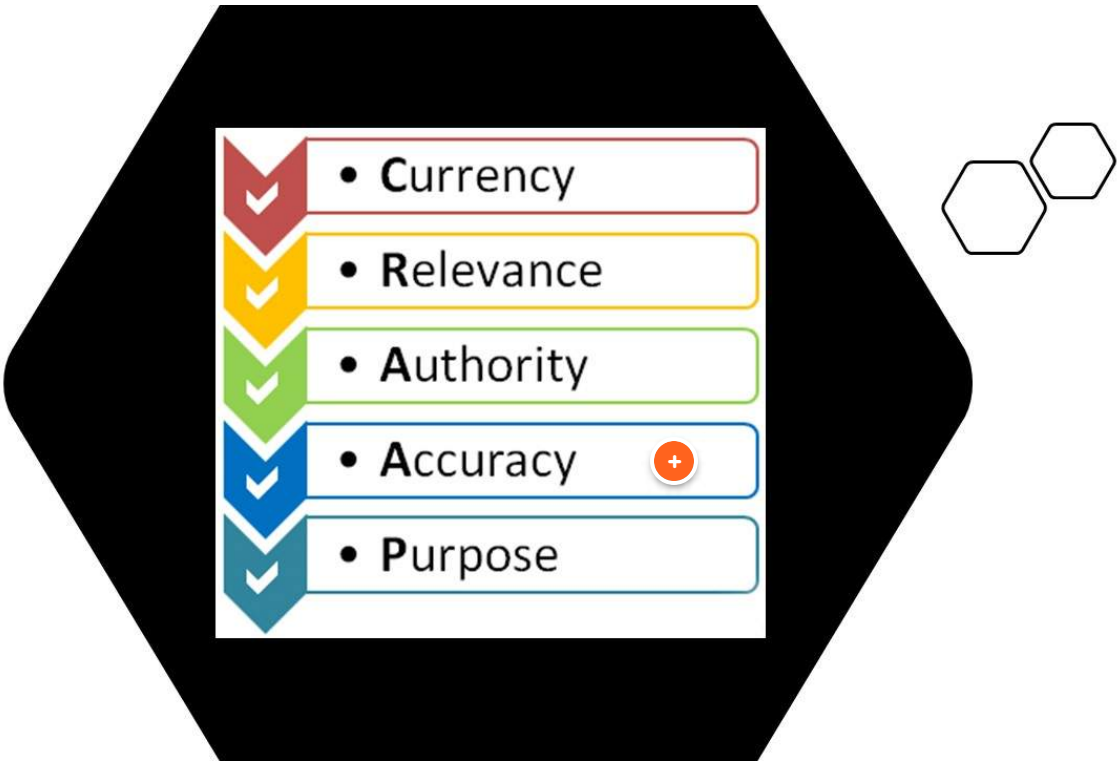
- Does the information relate to your topic? Does it help answer your question?
- Who is the intended audience?
- Is the information at an appropriate academic level?
- Is there better information available in another source?



Purpose

The reason the information exists.

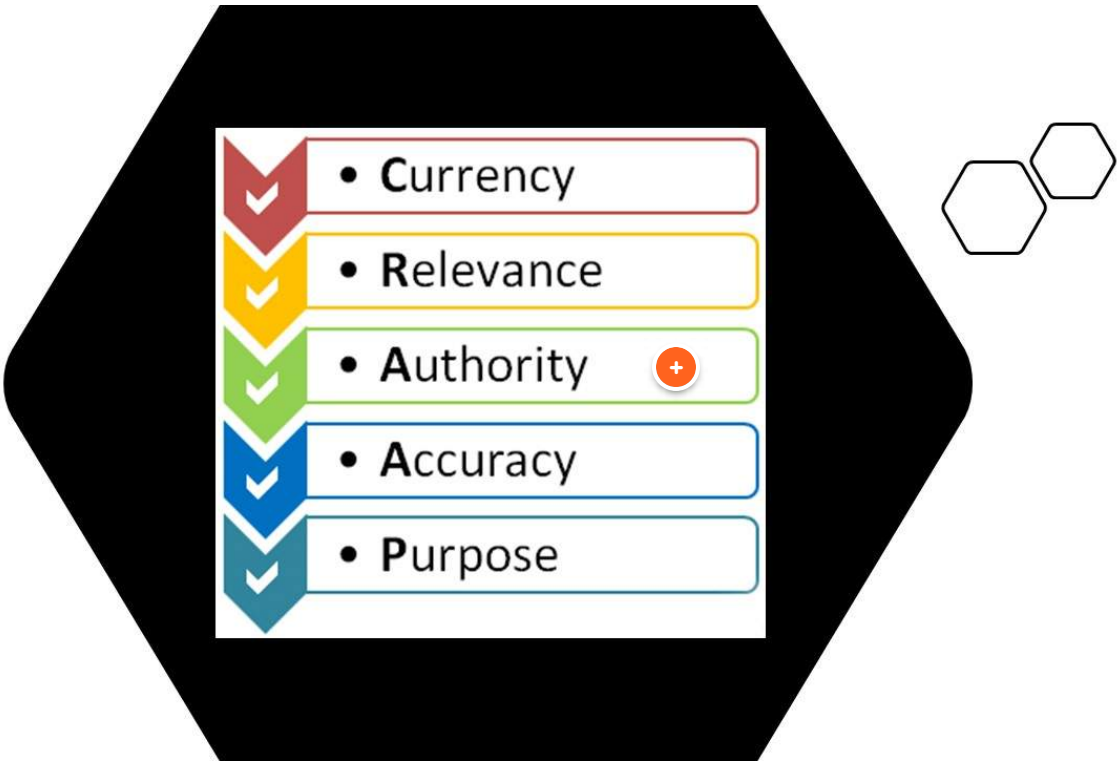
- Does the information have a clear purpose to inform, teach, sell, entertain or persuade?
- Does the point of view appear objective and impartial?
- Are there political, ideological, cultural, religious, institutional or personal biases?



Accuracy

The reliability and correctness of the information.

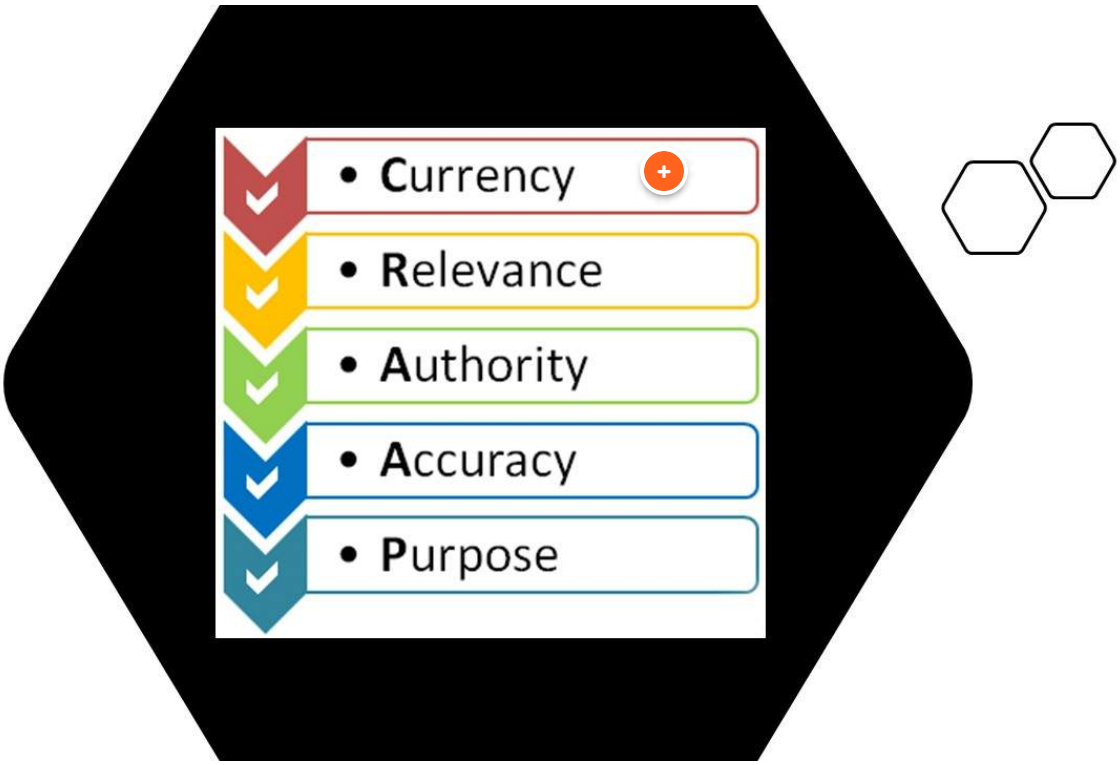
- Where does the information come from? Are there references or citations?
- Is the information supported by evidence?
- Has the information been peer reviewed?
- Can you verify any of the information in another source or from personal knowledge?
- Are there spelling, grammar or typographical errors?



Authority

The source of the information.

- Who created the information? (Author, Publisher, Source or Sponsor)
- What are the creator's credentials and affiliations?
- Is the creator qualified to write on the topic?
- Is the creator's contact information provided?
- For websites: Does the website reveal anything about the author or source? What kind of URL does the website have? (Examples: .com .edu .gov .org .net)



Currency

The timeliness of the information.

- When was the information created?
- Has the information been revised or updated since first publication?
- Is the information current to your topic?
- For websites: Are the links functional? When was the site last updated?

Bogus or Fake News

Below we will discuss some attributes of fake information and how to spot them.

YOUTUBE

What Is Fake News?

This Cyber Civics student video asks (and answers) the million dollar question: What is Fake News? Learn more: www.cybercivics.com

VIEW ON YOUTUBE >

Deep Fakes

Let us see if we can depict which video is real. Spot the fake.

How to Spot Fake Websites

Check Contact and About Us

If you're reading an article on a website you've never heard of before, take a look at the website's "Contact" and "About Us" pages. If the site is meant to be satirical, these pages will typically have a disclaimer.

If the site lacks these pages altogether, that's also a red flag, as most news outlets want their readers to be able to contact them and learn more about them.
Still not sure? Do a quick Google search of the website—does it have a reputation for publishing fake news or misleading information?

Check the URL

Does the URL look off in some way? This is often a tell-tale sign of a website that shares fake news, as some fake news websites try to mimic the URL, logo, and design of legitimate news websites, in order to trick readers.

Check Shortened URLs for a Fake URL
Look for Misspellings
Keep an Eye Out for Extra URL Words
Example:
The website **abcnews.com.co** published fake news stories and misled readers into thinking that they were reading stories from **abcnews.com**.

Triangulate with other sources

Chances are, if the majority of other news sites are reporting on the same story, it's at least partially true. Read multiple stories on the same subject to see what sources are being used and where the differences lie.

Use media literacy sites

Use media literacy sits like Snopes.com and Factcheck.org have to say. When fake news stories start to go viral, these sites typically pick up what's real and what's not.

Bias Checking

Our biases can make all of us susceptible to false or misleading information. Bias is a tendency to believe that some people, ideas, etc., are better than others, which often results in treating some people unfairly. These can be implicit, explicit or confirmation bias.

Explicit Bias

Explicit bias refers to attitudes and beliefs (positive or negative) that we consciously or deliberately hold and express about a person or group.

Implicit bias includes attitudes and beliefs (positive or negative) about

Implicit Bias	beliefs (positive or negative) about other people, ideas, issues, or institutions that occur outside of our conscious awareness and control, which affect our opinions and behavior.
Confirmation Bias	Confirmation bias emanates from our subconscious tendency to seek and interpret information and other evidence in ways that reassure and affirm our existing beliefs, ideas, expectations, and/or hypotheses. Simply put, information or

YOUTUBE

Why Do Our Brains Love Fake News?

Host Myles Bess breaks down the research around why our brains can so easily make us believe that fake news is real news. SUBSCRIBE to Above the Noise: [https://www.youtube.com/abovethenoise?sub_confirmation=1] ABOVE THE NOISE is a show that cuts through the hype and takes a deeper look at the research behind controversial and trending topics in the news.

VIEW ON YOUTUBE >

CONTINUE

Check your knowledge

For this, we will play the game Factitious and share our scores.