

# Abstract

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# Objectives

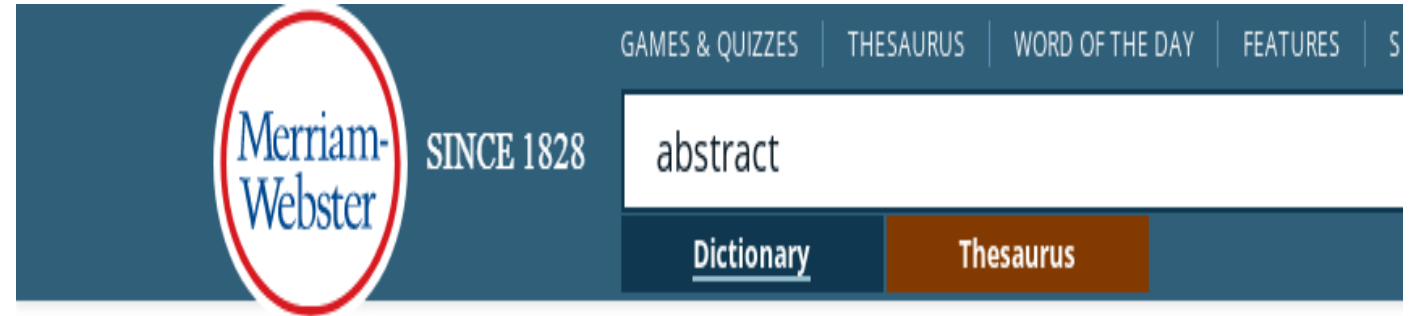
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- At the end of the presentation the student will be able to:
  - Define what is an abstract
  - Mention the different component of an abstract
  - Recognize the format and style characteristics in an abstract
  - Write an effective abstract

# What is an abstract?

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- It is a summary
  - It communicate scientific data
  - Its concise
  - It is precise
  - It is objective
  - It is based in data



The screenshot shows the Merriam-Webster website interface. At the top, there is a navigation bar with links for 'GAMES & QUIZZES', 'THESAURUS', 'WORD OF THE DAY', 'FEATURES', and 'S'. The Merriam-Webster logo is on the left, with 'SINCE 1828' to its right. A search bar contains the word 'abstract'. Below the search bar, there are two tabs: 'Dictionary' and 'Thesaurus', with 'Thesaurus' being the active tab.

## abstract noun

ab-stract | \ 'ab-, strakt , in sense 2 also ab-'strakt  \

### Definition of *abstract* (Entry 2 of 3)

- 1 : a summary of points (as of a writing) usually presented in skeletal form  
*also* : something that summarizes or concentrates the essentials of a larger thing or several things
- 2 : an abstract thing or state (see ABSTRACT entry 1)
- 3 : ABSTRACTION sense 4a

# Abstract definition

**3 abstract** /æb 'strækt/  *verb*

**abstracts; abstracted; abstracting**

**Britannica Dictionary definition of ABSTRACT** .....

[+ object]

**1** : to make a summary of the main parts of (a report, speech, etc.)

: to make an abstract of (something)

- *abstract* [=summarize] an academic paper

**2** : to obtain or remove (something) *from* a source

- Data for the study was *abstracted from* hospital records.

**3** *chiefly British, humorous* : to steal (something)

- She accused him of *abstracting* [=pinching] some money from her purse.

# When to write an abstract

- when submitting articles to journals, especially online journals
- when applying for research grants
- when writing a book proposal
- when completing the Ph.D. dissertation or M.A. thesis
- when writing a proposal for a conference paper
- when writing a proposal for a book chapter

# Types of abstract

## Informative Abstract

- at most 300 words
- critical information, conclusion + recommendations of the author

## Abstract

## Descriptive Abstract

- 100 words or less
- critical information without conclusion or judgement

## Critical Abstract

- 400-500 words
- critical information + comparison with existing works

# Types of abstract: Descriptive

- Descriptive abstract
  - A descriptive abstract indicates the type of information found in the work.
  - It makes no judgments about the work, nor does it provide results or conclusions of the research.
  - It does incorporate key words found in the text and may include the purpose, methods, and scope of the research.
  - It describes the work being abstracted.
  - Usually very short—100 words or less.

# Descriptive Abstract: Example

## **Abstract**

### **“Design of a Radio-Based System for Distribution Automation”**

**by Brian D. Raven**

A new survey by the Maryland Public Service Commission suggests that utilities have not effectively explained to consumers the benefits of smart meters. The two-year study of 86,000 consumers concludes that the long-term benefits of smart meters will not be realized until consumers understand the benefits of shifting some of their power usage to off-peak hours in response to the data they receive from their meters. The study presents recommendations for utilities and municipal governments to improve customer understanding of how to use the smart meters effectively.

**Keywords:** smart meters, distribution systems, load, customer attitudes, power consumption, utilities, Maryland Public Utilities Commission

This abstract is descriptive rather than informative because it does not present any of the major data from the survey or present the recommendations that are mentioned in the final sentence.



# Informative Abstract

- Informative abstracts
  - The writer presents and explains all the main arguments and the important results and evidence in the complete article/paper/book.
  - It includes the information that can be found in a descriptive abstract (purpose, methods, scope) but also includes the results and conclusions of the research and the recommendations of the author.
  - The length varies according to discipline.

# Informative Abstract

- Consist of:
  - Introductory sentences
    - 1 -3 sentences
  - Problem
  - Hypothesis
  - Methodology
    - Mainly the rationale of the methodology
    - Include success indicators
  - Results
    - If the research is completed
    - If is not done the research yet, include the expected results
  - Significance
    - Why this research is important and how will advance the science and mankind

# Informative Abstract: Example

16s RNA gene Restriction Fragment Length Polymorphism of Guánica Salterns Halobacteria.

One of the most intriguing things in science are extremophiles, it is fascinating the different physiological characteristics that this organism poses to survive on those extreme environments. How they manage to support harsh environmental conditions, how they fight high osmotic pressures and other situations is really fascinating. Guánica salterns halobacteria is an extremophile organism that live in a saline in Guánica Puerto Rico, we have isolated this extremophiles and performing a full characterization of the halobacteria and we are pursuing to develop the full phylogenetic tree for this archaea. We have gathered data to believe that we found a new species of halobacteria. We are cloning the gene by PCR cloning using primers develop in our lab. DNA sequencing of the amplified fragments and restriction fragment length polymorphism analysis of the 16s RNA gene of the Guánica Salterns Halobacteria, a highly conservative gene in species, will be done. To further characterize it, the DNA sequencing data will be use on a homology Blast analysis to compare it with other known halobacteria. We are doing clonal expansion of the halobacteria, DNA extractions, PCR cloning, restriction enzymes (RFLP), agarose electrophoresis, and bioinformatics tools. The knowledge of this halobacteria can enrich the scientific community, not only by the founding of a new species but the new characteristics that this organism can have hidden in their genome. Halobacteria are of great interest, not only for being extreme and have information in their physiology to survive in an extreme environment but we have data that shows that this organism produce pigments that can be used as food coloring, it has proteins that are functional in high salt environments that can be used in process of fermentation by big companies. Guánica Salterns Halobacteria can have the protein for the future great technique in biotechnology, or the future in the fermentation process to produce molecules that can impact the medical field.

## What is the Purpose of an Abstract

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To help potential readers determine the relevance of your paper for their own research.

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To communicate your key findings to those who don't have time to read the whole paper.

# How to write an Abstract

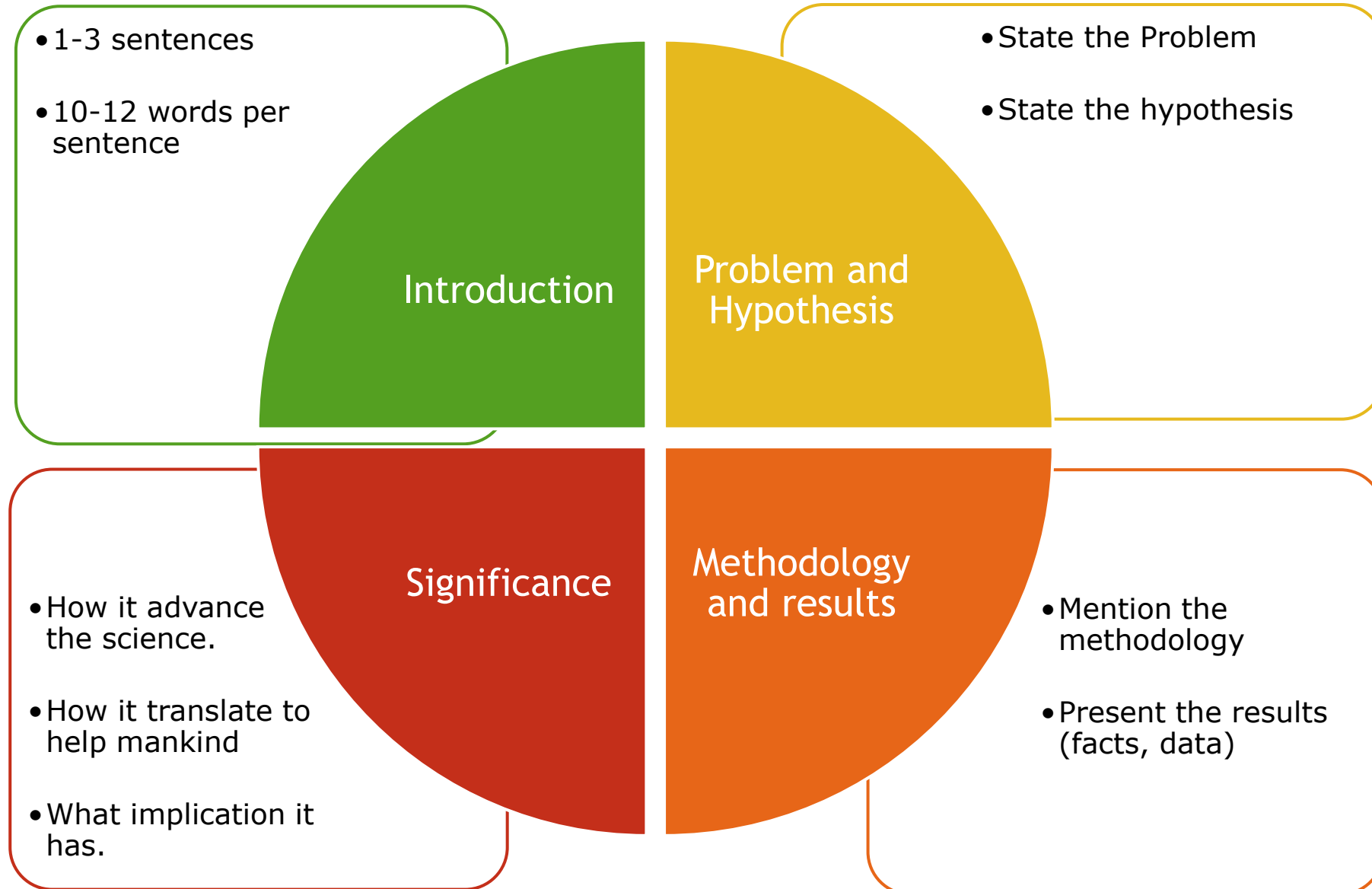
## First step

- Answer the following questions
  - What I want to communicate?
  - To whom I am communicating it?
  - What I want them to do with the information that I am communicating?

## Second Step

- Prepare a fluidity diagram
  - That could be done as a diagram or as an outline

# Abstract: Fluidity Diagram



# How to write an Abstract

- Third step
  - After answering the questions in the first step, write your first draft
    - The purpose of this draft is to capture the ideas
    - Do it in alignment with the fluidity diagram or outline
- Fourth step
  - Write the second draft
    - The purpose of this draft is to obtain clarity in what you are communicating
      - Ask yourself for each sentence in the first draft
        - What I want to say with this sentence?
        - Can I say it in less words?
        - Is the sentence in active voice?

# How to write an Abstract

- Fifth step
  - Write the third draft
    - The purpose of the third draft is to verify grammar and style
      - Make sure you comply with all the instructions of the journal or proposal
      - Verify grammar  
spelling  
capitalization  
syntax



# How to Write an Abstract

- Sixth step
  - Write the fourth draft
    - The purpose of this draft is to look out for fluidity
      - Verify that you comply with your fluidity diagram
      - Make sure that you have effective transitions sentences between paragraphs
      - Make sure that there is only one line of thought

# How to write an Abstract

## Final step

- Once you finished your fourth abstract, set it on your desk for couple of days
- After the two days passed, read it again and ask yourself
  - Did the abstract said what I want to say?
- Give it to other persons to read it and ask them
  - What the abstract tell you?

If the external readers tell you the same idea that you want to convey, congratulations your abstract is ready

Thank  
you



# References

- <https://www.britannica.com/dictionary/abstract>
- <https://www.merriam-webster.com/dictionary/abstract>
- <https://writingcenter.unc.edu/tips-and-tools/abstracts/>
- <https://www.bachelorprint.eu/academic-writing/how-to-write-an-abstract/abstract-example/>