Unit 4

Description

Description is the pattern of narrative development that aims to make vivid a place, object, character, or group. Description is one of four rhetorical modes (also known as *modes of discourse*), along with exposition, argumentation, and narration. Description is the fiction-writing mode for transmitting a mental image of the particulars of a story. Together with dialogue, narration, exposition, and summarization, description is one of the most widely recognized of the fiction-writing modes.

Arguments

An argument is a set of statements made up, at minimum, of the following parts:

- **A main conclusion:** This statement is a claim that expresses what the arguer is trying to persuade us to accept, whether or not it actually is true.
- **Evidence:** Also known as premises or support, the arguer provides these statements in order to show us that the conclusion is true. Essentially, the evidence answers the question, "Why do you believe [the conclusion] to be true?"

There is no set order to an argument's components; the conclusion could be at the beginning, in the middle, or at the end, and the same is true for any other component.

Note: When we analyze arguments in this way, we don't analyze their *tone* or *style*. Be prepared for the argument components to appear in a variety of writing styles.

Conclusion + evidence

The simplest arguments consist of one main conclusion and one piece of evidence. Here's an example:

- Sarah will probably receive a job offer, because she has ten years of experience.

  Which piece is the conclusion, and which piece is the evidence? Click below when you feel confident in your answer.

Conclusion + evidence + intermediate conclusion

More complex arguments might include something called an **intermediate conclusion**. Also known as a subsidiary conclusion (or "sub-conclusion" for short), this is a claim that acts *both* as a conclusion and as evidence. In other words, it's a conclusion based on evidence, but it's a conclusion that leads to yet *another* conclusion. For that reason, the intermediate conclusion can't be the *main conclusion*.

The Purpose of Comparison and Contrast in Writing

Comparison in writing discusses elements that are similar, while contrast in writing discusses elements that are different. A compare-and-contrast essay, then, analyzes two subjects by comparing them, contrasting them, or both.

The key to a good compare-and-contrast essay is to choose two or more subjects that connect in a meaningful way. The purpose of conducting the comparison or contrast is not to state the obvious but rather to illuminate subtle differences or unexpected similarities. For example, if you wanted to focus on contrasting two subjects you would not pick apples and oranges; rather, you might choose to compare and contrast two types of oranges or two types of apples to highlight subtle differences. For example, Red Delicious apples are sweet, while Granny Smiths are tart and acidic. Drawing distinctions between elements in a similar category will increase the audience's understanding of that category, which is the purpose of the compare-and-contrast essay.

Similarly, to focus on comparison, choose two subjects that seem at first to be unrelated. For a comparison essay, you likely would not choose two apples or two oranges because they share so many of the same properties already. Rather, you might try to compare how apples and oranges are quite similar. The more divergent the two subjects initially seem, the more interesting a comparison essay will be.

Writing at Work

Comparing and contrasting is also an evaluative tool. In order to make accurate evaluations about a given topic, you must first know the critical points of similarity and difference. Comparing and contrasting is a primary tool for many workplace assessments. You have likely compared and contrasted yourself to other colleagues. Employee advancements, pay raises, hiring, and firing are typically conducted using comparison and contrast. Comparison and contrast could be used to evaluate companies, departments, or individuals.

The Structure of a Comparison and Contrast Essay

The compare-and-contrast essay starts with a thesis that clearly states the two subjects that are to be compared, contrasted, or both and the reason for doing so. The thesis could lean more toward comparing, contrasting, or both. Remember, the point of comparing and contrasting is to provide useful knowledge to the reader. Take the following thesis as an example that leans more toward contrasting.

Illustration using graphics in writing

Graphics used in technical documentation serve a specific purpose - to present information in the clearest format possible for the reader. Basic graphic principles apply:

- avoid clutter,
- orient the image properly,
- be aware of scale,
- always verify content, and
- avoid any graphic that is extraneous.

Graphics should never be used to dress up a document; they should only be used to enhance understanding. When principles of design replicate principles of thought, the act of arranging information becomes an act of insight (E. Tufte intro).

A reader's attention is drawn to graphics more than to blocks of text. The use of graphics enables writers to present technical information more clearly and emphatically than words alone. Therefore, graphics for a technical document must be designed, edited, and prepared with precision to avoid weakness. Readers often look at graphics quickly. The message in a figure or table should be clear and readily apparent. The writer should be familiar with the intended audience of the document so that the right graphics are selected. Each graphic should focus on clearly conveying one piece of information.

Uncomplicated graphics work best. Avoid what Edward Tufte calls "chart junk" (E. Tufte, Visual) that distracts the reader from the intended information the graphic is presenting. The *Franklin Covey Style Guide for Business and Technical Communication* provides comprehensive guidelines for each of the graphical components, and this wiki content text draws heavily upon it for both content and style recommendations (Franklin).

There are several types of graphics, each with its own function. Graphics can represent these elements in a technical document:

- Numbers:
    - Tables
    - Graphs
        - Bar graphs

        - Line graphs
        - Pie graphs
    - Maps
- Concepts:
    - Charts
        - Flow Charts
        - Organizational charts
        - Scheduling Charts
- Objects:
    - Photographs
    - Illustrations
        - Drawings
        - Diagrams
        - Schematics
- Words - Words emphasized by boxing them, by changing the color or the font, or enlarging them to call attention in a text are all forms of graphics, albeit not very sophisticated (McMurrey).

Visual techniques for depicting quantity include direct labels - for example, the numerically labeled grids of statistical graphics; encodings - for example, color scales; and self-representing scales - for example, objects of known size appearing in an image (E. Tufte 13).

Illustrations are classified as either tables or figures: if the illustration is not a table (information is presented in columns and rows), then it is a figure. Tables and illustrations are numbered independently; within each category, they are numbered sequentially.

Tables

Tables are the best graphic to use when readers need to focus on specifics. "A table is an effective display for two-dimensional data, usually when one dimension is a collection or series of items and the second dimension consists of attributes or characteristics that all or most of the items have in common, such as description, type, size, and color" (Gurak 357). Tables can communicate many details in a simple way; details that would be hard to comprehend if done through words alone. An advantage of tables is that they can be quickly scanned for information and that "commonalities and differences" across entries are readily apparent (Gurak 358).

Guidelines for Creating Tables

- Explain what the table contains and how it will help the reader.
- Give the table either a title or caption, as appropriate.
- Write informative, understandable, and visually distinct heading labels.
- Make rows distinct through headings or display of categories.
- Avoid wordiness, limit text in cells to a few words.

- Use color coding and symbols to facilitate quick scanning and data comparison.
- Ensure the table will be readable in the display format.

Model No.	W (in)	H (in)	T (in)	Anchor Bolts		Number of Screws in Top of Wall	Total Wall Weight (lbs)
				Qty.	Dia. (in)		
SSW12x7	12	80	3½	2	¾	4	74
SSW15x7	15	80	3½	2	1	6	86
SSW18x7	18	80	3½	2	1	9	99
SSW21x7	21	80	3½	2	1	12	117
SSW24x7	24	80	3½	2	1	14	127
SSW12x7.4	12	85½	3½	2	¾	4	78
SSW15x7.4	15	85½	3½	2	1	6	91
SSW18x7.4	18	85½	3½	2	1	9	104
SSW21x7.4	21	85½	3½	2	1	12	122
SSW24x7.4	24	85½	3½	2	1	14	134
SSW12x8	12	93¼	3½	2	¾	4	85
SSW15x8	15	93¼	3½	2	1	6	99
SSW18x8	18	93¼	3½	2	1	9	113
SSW21x8	21	93¼	3½	2	1	12	132
SSW24x8	24	93¼	3½	2	1	14	144
SSW12x9	12	105¼	3½	2	¾	4	94
SSW15x9	15	105¼	3½	2	1	6	110
SSW18x9	18	105¼	3½	2	1	9	125
SSW21x9	21	105¼	3½	2	1	12	147
SSW24x9	24	105¼	3½	2	1	14	160
SSW12x10	12	117¼	3½	2	¾	4	104
SSW15x10	15	117¼	3½	2	1	6	121
SSW18x10	18	117¼	3½	2	1	9	138
SSW21x10	21	117¼	3½	2	1	12	162
SSW24x10	24	117¼	3½	2	1	14	177
SSW15x11	15	129¼	5½	2	1	6	148
SSW18x11	18	129¼	5½	2	1	9	167
SSW21x11	21	129¼	5½	2	1	12	193
SSW24x11	24	129¼	5½	2	1	14	209
SSW15x12	15	141¼	5½	2	1	6	160
SSW18x12	18	141¼	5½	2	1	9	180
SSW21x12	21	141¼	5½	2	1	12	208
SSW24x12	24	141¼	5½	2	1	14	225
SSW18x13	18	153¼	5½	2	1	9	194
SSW21x13	21	153¼	5½	2	1	12	224
SSW24x13	24	153¼	5½	2	1	14	243

Figure 1. Table of data for a steel wall product.

Graphs

Graphs plot a set of points on a set of axes, usually along the horizontal (x) and vertical (y) axes, to show abstract information in an easy to understand way. They visually represent and compare numerical data, and as such are useful for showing trends, cycles, cumulative changes, relationships between variables, and distributions. Though not as effective as a table in presenting precise data, readers can "see in one image a trend or pattern within a large data set" (Gurak 319). Graphs are better than tables to show the meaning of data.

"Because graphs represent complex data in visual form, they can be powerful and persuasive"(Gurak 322). Therefore, one must be careful when creating graphs that information is not distorted or misrepresented, that resource information is accurate, and that the graph is clear and easy to read (Gurak).

Guidelines for Creating Graphs

- Ensure the axes are clearly labeled, and that units of scale or measurement are identified (Gurak 323).
- Ensure that axes that do not begin at zero are clearly labeled.
- Ensure that the graph does not distort or modify the trend.
- Indicate the source of data used to construct the graph.
- Explain how the graph supports points discussed in the text.
- Design for simplicity, avoid overuse of colors and typefaces.
- Use software programs such as Microsoft Excel to create graphs.

Graphs should be numbered sequentially, include a title, and an informative caption which identifies the specific purpose of the graph. Warrant the source of the data contained in the graph with a footnote reference. Labels, numbers and letters should each be kept parallel with the horizontal axis.

Line Graphs

Line or coordinate graphs are plotted using grid lines, with a horizontal axis and a vertical axis. Labels and scales should indicate the quantity, magnitude and range of each axis. The key data lines should be made heavier than grid lines for less important data. Multiple lines can appear in the same chart to show different variables, and should appear in different colors or patterns to differentiate them (Franklin 108).

Line graphs are especially helpful to show several variables relating to one other variable. For example, time is the variable tracked in Figure 15.15, and several types of mortgage rates plotted over time. This creates a clear and simple visual comparison for the reader.

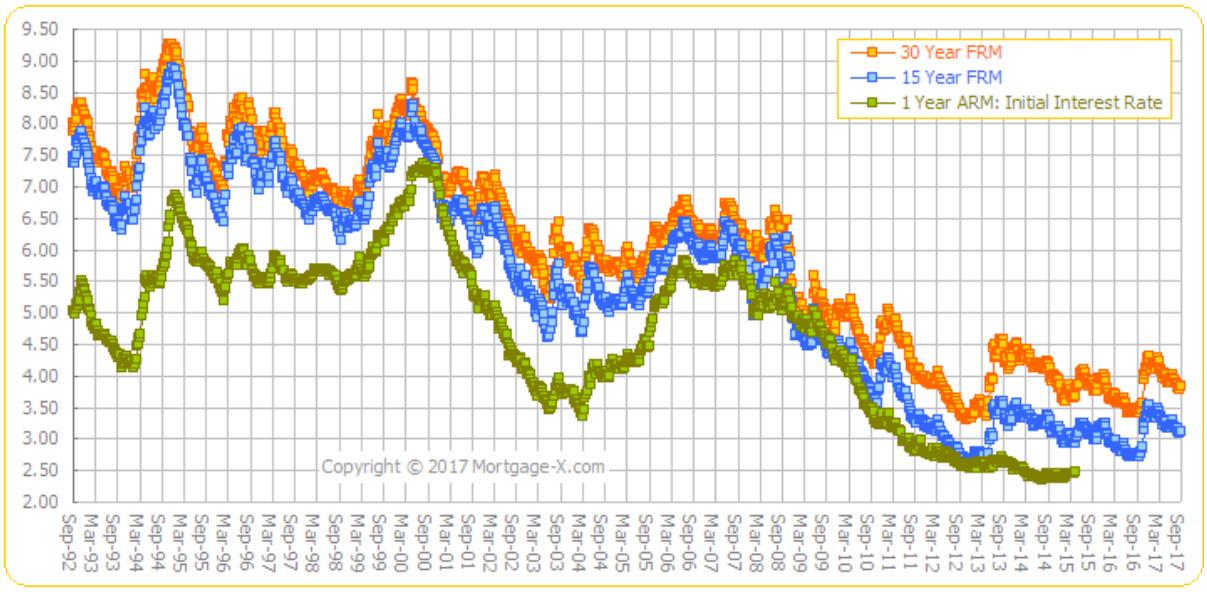

Figure 2. Mortgage interest rates from August 1992 through February 2009.

Bar Graphs

Bar graphs, as the name implies, use colored bars to depict a trend between two or more variables over time. "Most readers are familiar with bar graphs and can quickly grasp quantitative relationships by comparing the heights or lengths of the bars" (Gurak 319).

Bar graphs are not useful if the quantities shown do not differ significantly. Changing the axis scales to dramatize slight differences skews the reader's perception of the data.

Bar graphs can be horizontal or vertical - vertical bar graphs are considered better for showing trends and horizontal bar graphs are considered better for showing magnitude changes (Franklin 111).

Bars should be wider than the gaps between them, different patterns should be used to indicate differences and they should be labeled clearly.

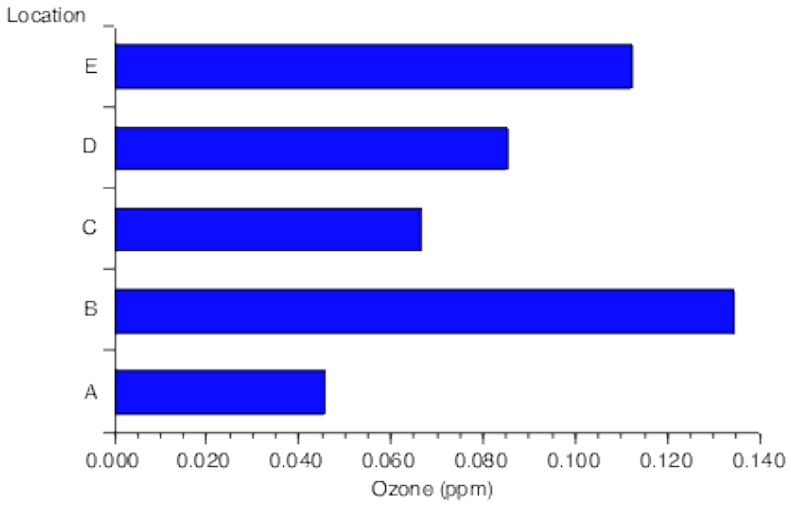

Figure 3. Ozone concentration in locations A through E.

Pie Graphs

Pie graphs are circles divided into sectors, or slices, to show the relationship of parts to a whole. "Pie charts are often accompanied by numerical data presented as a spreadsheet or table to allow readers to explore the displayed information in more detail" (Gurak 271).

The sectors must add up to 100 percent. Pie graphs are useful for general comparisons of relative size, but they are not useful if accuracy is important. They are also not useful for showing a large number of items. Different colors and/or fill patterns should be used for adjacent pie sectors. Small percentage items should be grouped under a general label such as "Other" (Franklin 113).

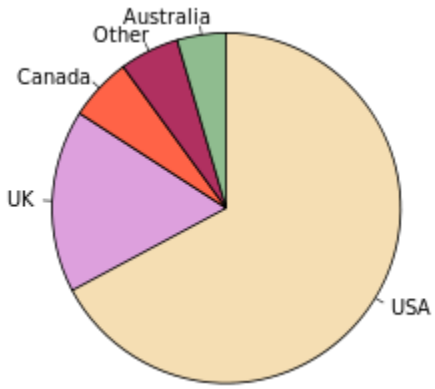

Figure 4. Pie Chart of populations of English native speakers.

Maps

Maps, both 2D and 3D, represent many purposes from simple road maps to visualizing complex numerical data. "The design and content of a map depends on the purpose and type of map being constructed, the conventions for that type of map, and the audience using it" (Gurak 324).

To map sequential data, it is best to use gradations of one or two colors to show gradations in the data. But, to show differences "in kind rather than in amount", many colors may be used; choose colors that are easily distinguished from one another (Gurak 325- 326).

Charts

Charts are some of the most valuable and frequently used types of graphics. Charts have several conflicting definitions, depending on the resource consulted. For the purposes of our Style Guide, we will follow the style supported by the *Franklin Covey Style Guide for Business and Technical Communication*. Charts are graphs that do not rely on numerical interpretations, including organizational charts, flow charts, and schedule charts. The purpose of the chart, the audience, the medium, and the data and ideas being conveyed in the document should determine the best type of chart to use, rather than adhering to a hard rule (Franklin 42).

A chart is only as good as the effect it creates. A chart should only be included if it communicates information quickly and simply. Charts should be integrated with the text and convey information more dramatically than is possible without their use. A chart can both replace text and provide a visual road map that readers can use as they read through dense and complex material. Charts also provide a visual, which can aid recall. Flow charts, organization charts or scheduling charts should be used to help readers visualize the major points in a document.

Guidelines for Creating Charts

- Ensure the chart is consistent with how the audience will view the data.
- Design the chart so that it shows one primary idea or specific relationship.
- Keep the chart simple and clear; do not include too much information.
- Use clear, concise labels and titles; do not include too much text.
- Ensure that the information is not distorted or misleading.
- Use software programs such as Microsoft Excel to create charts.
- Ensure the chart is easily read from one-page orientation.

Sequentially number and label all charts the same as other graphics contained within a document. Do not have a separate numbering scheme for charts. Place footnotes and warranting evidence below a chart.

Flowchart

A flowchart is a common type of chart, representing an algorithm or process, and showing the steps as boxes of various kinds, and their order by connecting these with arrows. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields.

There are many different types of flowcharts for different users (such as analysts, designers, engineers, managers, or programmers) representing different types objects.

Four General Types of Flowcharts (Sterneckert)

- **Document**
  - shows document flow through system
- **Data**
  - shows data flows in a system
- **System**
  - shows controls at a physical or resource level
- **Program**
  - shows the controls in a program within a system (Business)

Features of a Flow Chart (Gurak 273)

- Each step in the process is represented by a shape.
- Decision steps are labeled in the form of a question. Different paths may be taken depending upon the answer to the question.

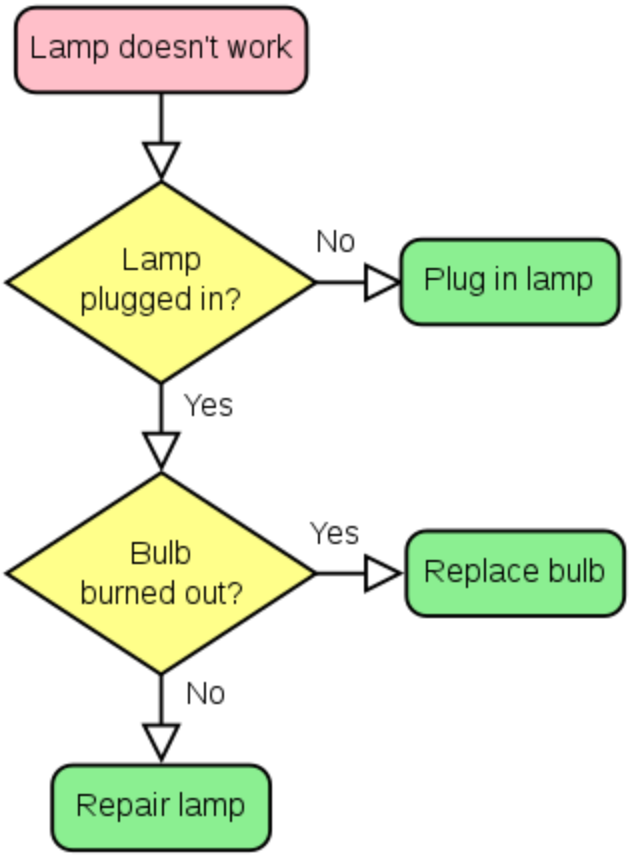

Figure 5. Flowchart representing steps for troubleshooting a broken lamp.

Organizational Chart

Organizational charts help readers visualize the structure and internal relationships of units or individuals within an organization.

Organizational Charts Typically Show:

- divisions and subdivisions of the organization,
- hierarchy and relationship of the groups to one another,
- lines of responsibility and authority, where solid lines indicate direct lines of control, and
- lines of communication and coordination through the use of dashed lines.

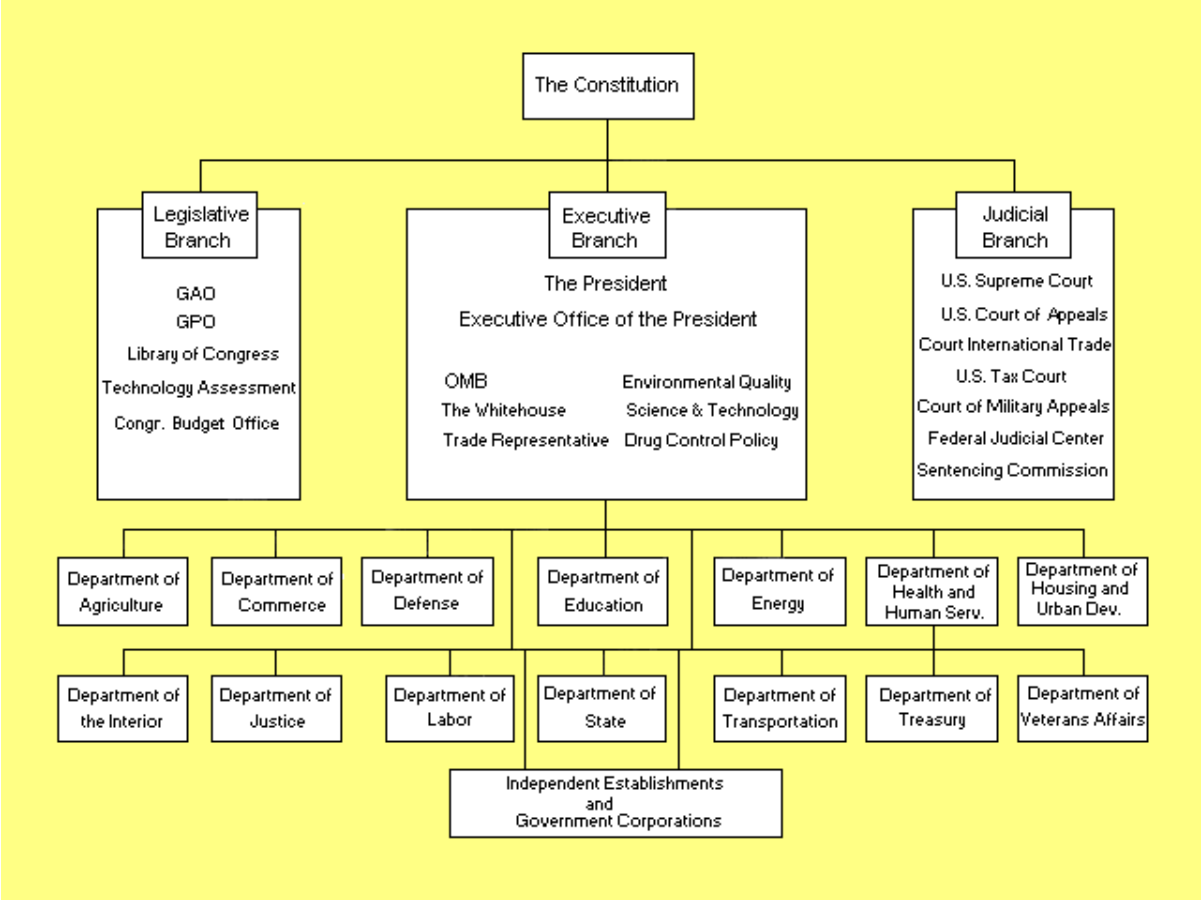

Figure 6**.** Organizational chart of the US government.

Scheduling Chart

A common project task is to schedule a series of events; the complexity of this task can vary considerably depending on how many steps are involved in the process. Some common challenges are:

- Resource Scheduling or the scheduling of people to work on and resources required by tasks.
- Dealing with uncertainties in the estimates of the duration of each task.
- Arranging tasks to meet various deadlines.
- Juggling multiple projects simultaneously to meet a variety of requirements (Franklin 47).

A scheduling chart visually illustrates the steps and their dependencies in a process. There are several types of commonly used scheduling systems.

Examples of Scheduling Systems

- Gantt,
- MindMapper,
- Fixed Point Chart (FPC), and
- PERT (Program Evaluation and Review Technique) (Evaluation).

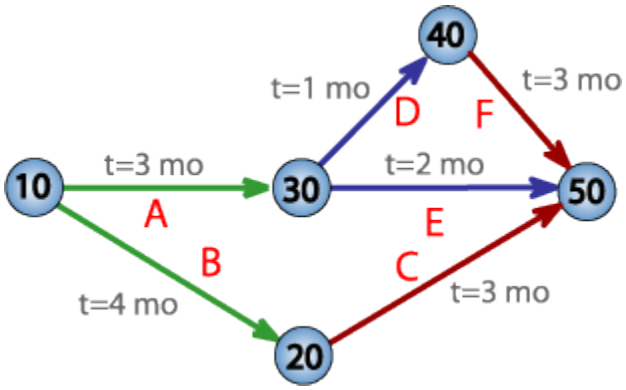

Figure 7. PERT Network Chart for a seven-month project with five milestones (10 through 50) and six activities (A through F).

Research Paper

A research paper is a piece of academic writing based on its author's original research on a particular topic and analysis together with interpretation of research findings. A research paper is a common assignment. It comes to a situation when students, scholars, and scientists need to answer specific questions by using sources.

Format of a Research Paper

Introduction

Introduction provides the main information on problem statements, the indication of methodology, important findings, and principal conclusion. Basically, this section of a research paper covers rationales behind the work or background research, explanation of the importance, defending its relevance, a brief description of experimental designs, defined research questions, hypotheses, or key aspects.

The **Introduction** is one of the most important elements of any great research paper, and interestingly enough, often written LAST. This is because the purpose of the introduction is to grab the attention of the reader, this is done by presenting the reader with the topic, and using the thesis statement as an opportunity to 'hook' the attention of the reader.

Abstract

An abstract, or brief summary of your findings. An abstract does not need to be provided in every paper, but an abstract should be used in papers that include a hypothesis. A good abstract is concise—about one hundred fifty to two hundred fifty words—and is written in an objective, impersonal style. Your writing voice will not be as apparent here as in the body of your paper. When writing the abstract, take a just-the-facts approach, and summarize your research question and your findings in a few sentences. **Abstract** means the first section of a research paper that provides the study's purpose, research questions or suggestions, main findings with conclusions. Moreover, this paragraph of about 150 words should be written when the whole work is finished already. Hence, abstract sections should describe key aspects of studies, including discussions about the relevance of findings

Literature Review

Literature Review is needed for the analysis of past studies or scholarly articles to be familiar with research questions or topics. Hence, this section summarizes and synthesizes arguments and ideas from scholarly sources without adding new contributions. In turn, this part is organized around arguments or ideas, not sources.

Methodology or Materials and Methods

Methodology or **Materials and Methods** covers explanations of research designs. Basically, techniques for gathering information and other aspects related to experiments must be described in a research paper. For instance, students and scholars document all specialized materials and general procedures. In this case, individuals may use some or all of the methods in further studies or judge the scientific merit of the work. Moreover, scientists should explain how they are going to conduct their experiments.

Results

Results mean the gained information or data after the research or experiment. Basically, scholars should present and illustrate their findings. Moreover, this section may include tables or figures.

Discussion

Discussion is a section of a research paper where scientists review the information in the introduction part, evaluate gained results, or compare it with past studies. In particular, students and scholars interpret gained data or findings in appropriate depth. For example, if results differ from expectations at the beginning, scientists should explain why that may have happened. However, if results agree with rationales, scientists should describe theories that the evidence is supported.

Recommendations

Recommendations take its roots from a discussion section where scholars propose potential solutions or new ideas based on obtained results in a research paper. In this case, if scientists have any recommendations on how to improve this research so that other scholars can use evidence in further studies, they must write what they think in this section.

Limitations

Limitations mean a consideration of research weaknesses and results to get new directions. For instance, if researchers found any limitations of studies that could affect experiments, scholars must not use such knowledge because of the same mistakes. Moreover, scientists should avoid contradicting results, and, even more, they must write it in this section.

Conclusion

Conclusion includes final claims of a research paper based on findings. Basically, this section covers final thoughts and the summary of the whole work. Moreover, this section may be used instead of limitations and recommendations that would be too small by themselves. In this case, scientists do not need to use headings for recommendations and limitations.

Acknowledgments or **Appendix**

Acknowledgments or **Appendix** may take different forms from paragraphs to charts. In this section, scholars include additional information on a research paper.

References

References mean a section where students, scholars, or scientists provide all used sources by following the format and academic rules.

The brief citations included in the body of your paper correspond to the more detailed citations provided at the end of the paper in the references section. In-text citations provide basic information—the author's name, the publication date, and the page number if necessary—while the references section provides more extensive bibliographical information. Again, this information allows your reader to follow up on the sources you cited and do additional reading about the topic if desired.

The specific format of entries in the list of references varies slightly for different source types, but the entries generally include the following information:

- The name(s) of the author(s) or institution that wrote the source
- The year of publication and, where applicable, the exact date of publication
- The full title of the source
- For books, the city of publication
- For articles or essays, the name of the periodical or book in which the article or essay appears

- For magazine and journal articles, the volume number, issue number, and pages where the article appears
- For sources on the web, the URL where the source is located

The references page is double spaced and lists entries in alphabetical order by the author's last name. If an entry continues for more than one line, the second line and each subsequent line are indented five spaces.

Research Paper Structure

Sections	What to do?
Abstract	Write 150 words on the purpose of the study, research questions or suggestions, and main findings with conclusions.
Outline	Organize the map of the study.
Introduction	Provide the main information on the problem statement, the indication of methodology, important findings, and principal conclusion.
Literature Review	Analyze and incorporate scholarly sources on past studies.
Methodology or Materials and Methods	Explain the design of the research with techniques that are used for gathering information and other aspects related to the experiment.
Results	Present and illustrate the obtained findings.
Discussion	Review the information in the introduction part, evaluate their gained results, or compare it with past studies.
Recommendations	Propose potential solutions or new ideas based on the obtained results.
Limitations	Consider the weaknesses of the research and results to get new directions.
Conclusion	Provide final thoughts and the summary of the whole work.
Acknowledgments or Appendix	Include additional information on the research paper if it is necessary.
References	Provide and cite all used sources in the study.

How to Conduct an Effective Literature Review

The process of conducting a literature review can be overwhelming. However, if you start with a clear research question, you can stay focused.

1. **Literature search:** Search for articles related to your research question. Keep notes of the search terms and keywords you use. A list of databases to search and notes of the ones you have searched will prevent duplicate searches.
2. **Critically analyze the literature:** Check each piece of literature for the following to help you decide whether it is relevant to your research:

- What is their research question?

- Are there potential conflicts of interest such as funders who may want a particular result?

- Are their methods sufficient to test the objectives?

- Can you identify any flaws in the research?

- Do their results make sense, or could there be other reasons for their conclusion?

- Are the authors respected in the field?

- Has the research been cited?

How to Write a Good Research Paper Abstract

The importance of research paper abstracts cannot be emphasized enough.

- They are used by online databases to index large research works. Therefore, critical keywords must be used.
- Editors and reviewers read an abstract to decide whether an article is worth considering for publication.
- Readers use an abstract to decide whether the research is relevant to them.

A good research paper abstract is a concise and appealing synopsis of your research. There are two ways to write an abstract: structured and unstructured research abstracts. The author guidelines of the journal you are submitting your research to will tell you the format they require.

- The **structured abstract**has distinct sections with headings. This style enables a reader to easily find the relevant information under clear headings (objective, methods, results, and conclusion). Think of each section as a question and provide a concise but detailed answer under each heading.
- The **unstructured abstract** is a narrative paragraph of your research.

Effectively Citing and Referencing Your Sources

You need to acknowledge the original work that you talk about in your write-up. There are two reasons for this. First, cite someone's idea to avoid plagiarism. Plagiarism is when you use words

or ideas of others without acknowledging them and this is a serious offence. Second, readers will be able to source the literature you cited easily.

This is done by citing works in your text and providing the full reference for this citation in a reference list at the end of your document.

Tips for effective refencing/citations:

1. Keep a detailed list of your references including author(s), publication, year of publication, title, and page numbers.
2. Insert a citation (either a number or author name) in-text as you write.
3. List the full reference in a reference list according to the style required by the publication.
4. Pay attention to details as mistakes will misdirect readers.

Reference

Reference can be understood as the act of giving credit to or mentioning the name of, someone or something. In research methodology, it denotes the items which you have reviewed and referred to, in the text, in your research work. It is nothing but a way to acknowledge or indirectly showing gratitude, towards the sources from where the information is gathered.

While using references, one thing is to be noted that you go for reliable sources only, because it increases credence and also supports your arguments. It may include, books, research papers, or articles from magazines, journals, newspapers, etc., interview transcripts, internet sources such as websites, blogs, videos watched, and so forth.

These are used to inform the reader about the sources of direct quotations, tables, statistics, photos etc. that are included in the research work.

There is also a particular formatting style you must follow. It depends on the field of your studies or requirements of your University supervisor. There are several formatting styles typically used. The most commonly used are APA style and MLA style. However, there are such style guides as, Harvard, Chicago Manual of Style, American Medical Association (AMA) Style, APSA (American Political Science Association), ASA (American Sociological Association), IEEE (Institute of Electrical and Electronics Engineers) and more. Check informative style guides before completing formatting.

APA (American Psychological Association) style is mostly used to cite sources within social sciences field. The detailed information is in Publication Manual of American Psychological Association, (6th ed., 2nd printing).

MLA (Modern Language Association) style is most commonly used for liberal arts and humanities. The most recent printed guide on it is MLA Handbook (8th ed.). Instead of providing individual recommendations for each publishing format (printed, online, e-books, etc.), this edition recommends a single universal set of guidelines, which writers can apply to any kind of source. Also, remember to use parenthetical citations for MLA research paper format correctly.

In-Text Citations

Throughout the body of your paper, include a citation whenever you quote or paraphrase material from your research sources. the purpose of citations is twofold: to give credit to others for their ideas and to allow your reader to follow up and learn more about the topic if desired. Your in-text citations provide basic information about your source; each source you cite will have a longer entry in the references section that provides more detailed information.

In-text citations must provide the name of the author or authors and the year the source was published. (When a given source does not list an individual author, you may provide the source title or the name of the organization that published the material instead.) When directly quoting a source, it is also required that you include the page number where the quote appears in your citation.

This information may be included within the sentence or in a parenthetical reference at the end of the sentence, as in these examples.

Epstein (2010) points out that "junk food cannot be considered addictive in the same way that we think of psychoactive drugs as addictive" (p. 137).

Here, the writer names the source author when introducing the quote and provides the publication date in parentheses after the author's name. The page number appears in parentheses **after** the closing quotation marks and **before** the period that ends the sentence.

Addiction researchers caution that "junk food cannot be considered addictive in the same way that we think of psychoactive drugs as addictive" (Epstein, 2010, p. 137).

Here, the writer provides a parenthetical citation at the end of the sentence that includes the author's name, the year of publication, and the page number separated by commas. Again, the parenthetical citation is placed **after** the closing quotation marks and **before** the period at the end of the sentence.

As noted in the book *Junk Food, Junk Science* (Epstein, 2010, p. 137), "junk food cannot be considered addictive in the same way that we think of psychoactive drugs as addictive."

Here, the writer chose to mention the source title in the sentence (an optional piece of information to include) and followed the title with a parenthetical citation. Note that the parenthetical citation is placed **before** the comma that signals the end of the introductory phrase.

David Epstein's book *Junk Food, Junk Science* (2010) pointed out that "junk food cannot be considered addictive in the same way that we think of psychoactive drugs as addictive" (p. 137).

Another variation is to introduce the author and the source title in your sentence and include the publication date and page number in parentheses within the sentence or at the end of the sentence. As long as you have included the essential information, you can choose the option that works best for that particular sentence and source.

Citing a book with a single author is usually a straightforward task. Of course, your research may require that you cite many other types of sources, such as books or articles with more than one author or sources with no individual author listed. You may also need to cite sources available in both print and online and nonprint sources, such as websites and personal interviews.

Bibliography

A bibliography is a list of all of the sources you have used (whether referenced or not) in the process of researching your work. In general, a bibliography should include:

- the authors' names
- the titles of the works
- the names and locations of the companies that published your copies of the sources
- the dates your copies were published
- the page numbers of your sources (if they are part of multi-source volumes)

Also known as a list of *works cited*, a bibliography may appear at the end of a book, report, online presentation, or research paper. Students are taught that a bibliography, along with correctly formatted in-text citations, is crucial to properly citing one's research and to avoiding accusations of plagiarism. In formal research, all sources used, whether quoted directly or synopsized, should be included in the bibliography.

An annotated bibliography includes a brief descriptive and evaluative paragraph (the *annotation*) for each item in the list. These annotations often give more context about why a certain source may be useful or related to the topic at hand.

- **Etymology:** From the Greek, "writing about books" (*biblio*, "book", *graph*, "to write")
- **Pronunciation:** bib-lee-OG-rah-fee

BASIS FOR COMPARISON	REFERENCE	BIBLIOGRAPHY
Meaning	Reference implies the list of sources, that has been referred in the research work.	Bibliography is about listing out all the materials which has been consulted during the research work.
Based on	Primary Sources	Both Primary and Secondary Sources
Arrangement	Alphabetically and numerically	Numerically
Includes	Only in-text citations, that have been used in the assignment or project.	Both in-text citations and other sources, that are used to generate the idea.
Supporting argument	A reference can be used to support an argument.	A bibliography cannot be used to support an argument.
Used for	Thesis and Dissertation	Journal Papers and Research work

Definition of Bibliography

At the end of the research report, bibliography is added, which contains a list of books, magazines, journals, websites or other publications which are in some way relevant to the topic under study, that has been consulted by the researcher during the research. In finer terms, it comprises of all the references cited in the form of footnotes and other important works that the author has studied.

The bibliography is helpful to the reader in gaining information regarding the literature available on the topic and what influenced the author. For better presentation and convenient reading, the bibliography can be grouped into two parts, wherein the first part lists out the names of books and pamphlets consulted, and the other contains the names of magazines and newspapers considered.

Types of Bibliography

- **Bibliography of works cited**: It contains the name of those books whose content has been cited in the text of the research report.
- **Selected Bibliography**: As it is evident from the name itself, selected bibliography covers only those works which the author assumes that are of major interest to the reader.

- **Annotated Bibliography**: In this type of bibliography, a small description of the items covered is given by the author to ensure readability and also improve the usefulness of the book.

Key Differences between Reference and Bibliography

The difference between reference and bibliography can be drawn clearly on the following grounds:

1. Reference implies referring to someone or something, that means it provides the list of sources, whose text is used in the assignment or research work. Conversely, bibliography represents the list of all the sources, from which the research has gained some information about the topic, irrespective of the work cited or not.
2. References are based on primary sources, whereas bibliography is created on the basis of primary and secondary sources.
3. References used in the assignment can be arranged alphabetically or numerically. On the contrary, list of sources used in the bibliography is arranged numerically.
4. The bibliography is used to list out everything you go through to obtain the information relating to the assignment, no matter if you specifically cite it in your assignment or not. Now coming to references, it only takes into account those sources which have been cited in the assignment.
5. The main objective of adding a reference at the end of the document is to improve credence or support an idea or argument. As against, the bibliography is not used for supporting an argument.
6. While reference is used in thesis and dissertation. On the other hand, bibliography is used in case of journal paper and research work.