Study Skills

Chapter 3

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Lesson 1

Thinking Maps®

Key Words

analogies
Brace Map
Bridge Map
Bubble Map
Circle Map
Double Bubble Map
Flow Map
Multiflow Map
relating factor
Tree Map

What You Will Learn to Do

- Use Thinking Maps® to enhance learning

Linked Core Abilities

- Apply critical thinking techniques

Skills and Knowledge You Will Gain Along the Way

- Identify the types of thinking processes
- Relate thinking to learning
- Correlate thinking processes to the eight Thinking Maps®
- Use Thinking Maps® to visually depict a learning objective
- Define the key words contained in this lesson

Introduction

Describing an item or a concept can be difficult. It's probably not hard for you to describe a flower or a dog, but it might be difficult to keep your description organized in your mind. And what gets even trickier is when you're asked to describe or define main and supporting ideas of a story, or the cause and effect of a specific action. Your thoughts and ideas can easily get confused, or you might even forget some of your descriptions and conceptual thoughts.

Thinking Maps® were created to help you organize your thinking so that you can construct knowledge much like an engineer uses a certain set of tools to build a new bridge. This lesson introduces you to Thinking Maps® and covers how each of the eight maps shown in Figure 3.1.1 can be used to develop a common thinking-process language. Keep in mind as you read through this lesson how thinking and learning go hand in hand.

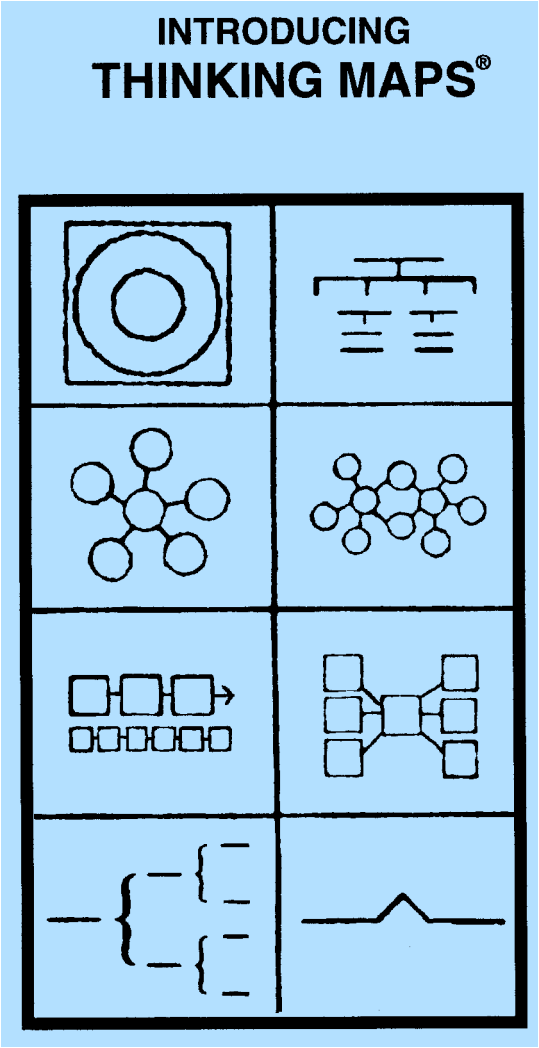

Figure 3.1.1: The eight Thinking Maps®.

Types of Thinking Maps®

Thinking Maps® are visual learning tools. Each map is based on a fundamental thinking process, such as describing a quality, sequencing, classifying, comparing and contrasting, and can be used together as a set of tools for showing relationships. These maps—the Circle Map, Bubble Map, Double Bubble Map, Tree Map, Brace Map, Flow Map, Multi-Flow Map, and Bridge Map—all serve a specific purpose for different types of thinking processes. The following sections describe the eight types of Thinking Maps® and how they can best aid you in your learning process.

The Circle Map

Key Note Term

Circle Map – tool used for brainstorming

The **Circle Map** (see Figure 3.1.2) is used for brainstorming ideas. It is used to define in context and answer the question, "How are you defining this thing or idea?" In the center of the circle, use a word, number, picture, or any other sign or symbol to represent an object, person, or idea you are trying to understand or define. Write or draw any information that puts this object, person, or idea into context. This type of map shows the most random type of thinking.

The square around the map is a frame of reference. It tells how you know or learned about the context. A frame of reference can be used with any type of Thinking Map®.

The Bubble Map

Key Note Term

Bubble Map – tool used for describing qualities

The **Bubble Map** (see Figure 3.1.3) is used to describe qualities of a person, place, or thing. In the middle circle, write the name of the object that you want to describe; then, in the six surrounding circles, write the adjectives or adjective phrases that describe that object and answer the question, "Which adjective would best describe this object?" By the time your Bubble Map is finished, it may look similar to a web or a cluster.

Bubble Maps are also useful for developing vocabulary, distinguishing between fact and fiction, and valuing/evaluating. Bubble Maps should not be used for brainstorming; the Circle Map is best for that.

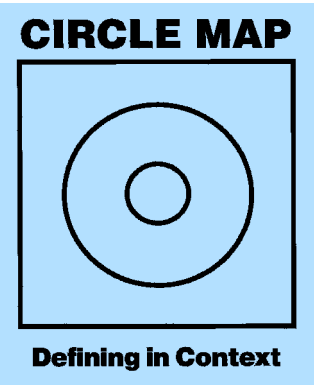

Figure 3.1.2: The Circle Map.

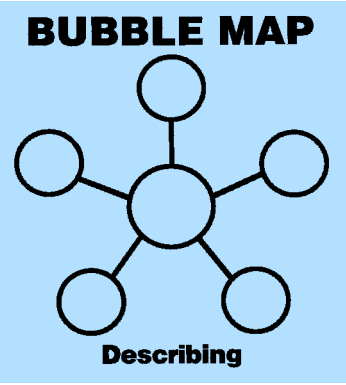

Figure 3.1.3: The Bubble Map.

The Double Bubble Map

The **Double Bubble Map** (see Figure 3.1.4) is used for comparing and contrasting. In the larger center circles, write the words for the two items or objects being investigated. In the middle bubbles, use adjectives, adjective phrases, and other terms that show similarity between the two objects and answer the question, "What are the similarities and differences?" In the outside bubbles, as connected respectively to the two objects, write the words that describe their different qualities.

Key Note Term

Double Bubble Map – tool used to compare and contrast

The Tree Map

The **Tree Map** (see Figure 3.1.5) is used for classifying and categorizing objects and ideas according to common qualities and information about the category. It answers the question, "What are the main ideas and supporting details of the topics?" On the top line, write the category name. On the second level list the subcategories and then below each subcategory, write the specific members.

Tree Maps can be used for hierarchical classifications as well as for informal groupings of themes, concepts, and ideas.

Key Note Term

Tree Map – tool used for classifying and categorizing

The Brace Map

The **Brace Map** (see Figure 3.1.6) is used to analyze physical objects and shows part-whole relationships. It answers the question, "What are the parts of the whole physical object?" On the line to the left, write the name of the whole object. On the lines within the first brace to the right, write the major parts of the object; then follow within the next set of braces with the subparts of each major part.

Brace Maps can also be used to identify the anatomy of any object as well as developing special reasoning.

Key Note Terms

Brace Map – tool used to analyze a physical object and its parts

Flow Map – tool used to determine sequencing

The Flow Map

If you need to sequence or order information, use the **Flow Map** (see Figure 3.1.7). It answers the question, "What happened?" In the outside rectangle, write the name for an event or sequence. In the larger rectangles, flowing from left to right, write in the major stages of the event. In the small rectangles below, write in the substage of each major stage.

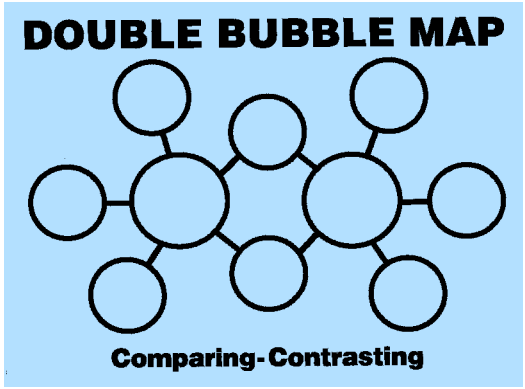

Figure 3.1.4: The Double Bubble Map.

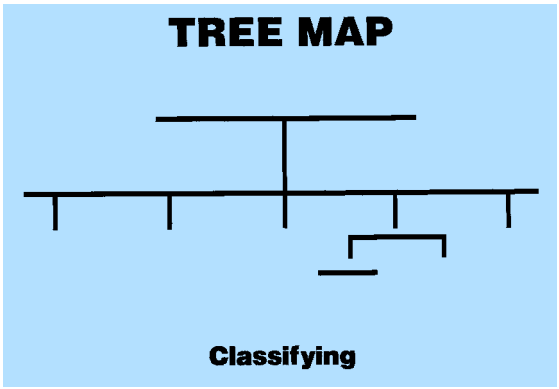

Figure 3.1.5: The Tree Map.

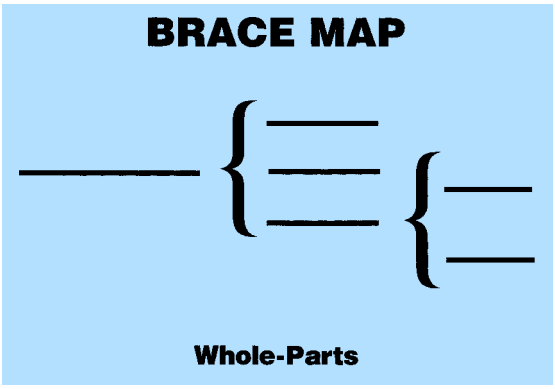

Figure 3.1.6: The Brace Map.

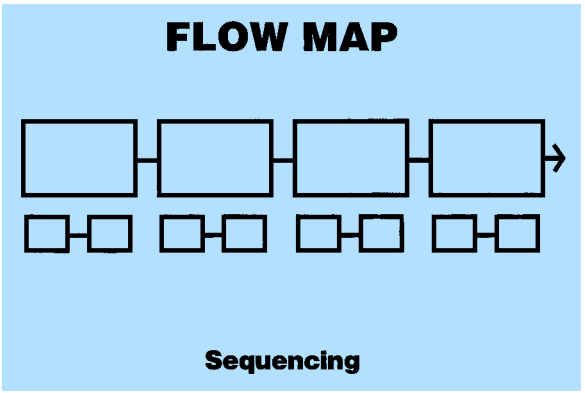

Figure 3.1.7: The Flow Map.

Other uses for the Flow Map include the sequence of a plot, a timeline, order of operations, and framing long-term outcomes.

The Multi-Flow Map

The **Multi-Flow Map** (see Figure 3.1.8) is used for showing and analyzing cause-and-effect relationships. It answers the question, "What are the causes and effects of the event?" In the center rectangle write an important event that has occurred. On the left side of the event, write the causes of the event; on the right side, write the effects of the event.

As you identify more causes and effects, add them to the map. If you are studying a system, you will find that there are effects in the system, which, in turn influence initial causes. This circular cause-and-effect relationship is called a feedback loop.

Key Note Terms

Multi-Flow Map – tool used for seeing cause-and-effect

Bridge Map – tool used for seeing analogies

analogies – resemblance in some particulars between things otherwise unlike

relating factor – The similar phrase that fits both sides of an analogy.

The Bridge Map

The **Bridge Map** (see Figure 3.1.9) gives you a tool for applying the process of seeing **analogies** and answers the question, "What is the guiding metaphor?" On the line to the far left, write the **relating factor**. On the top and bottom of the left side

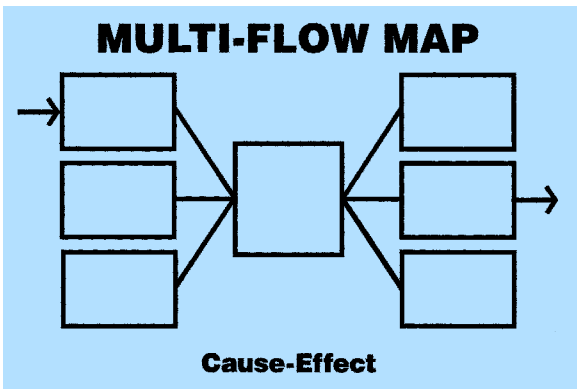

Figure 3.1.8: The Multi-Flow Map.

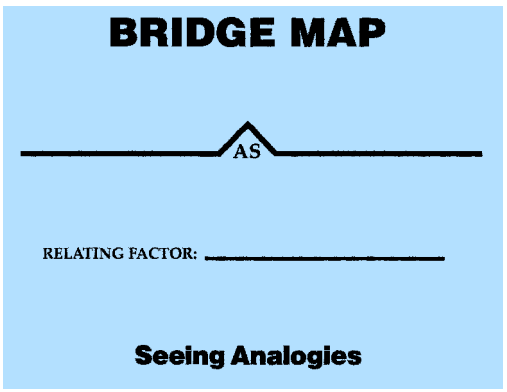

Figure 3.1.9: The Bridge Map.

of the bridge, write the first pair of things that have this relationship. On the right side of the bridge, write the second pair of relationships that have the same relationship. This line of the bridge represents the relating factor that is "bridged over" from one side of the analogy to the other.

Conclusion

Each Thinking Map® defined in this lesson was designed to help you develop a consistent way to process your thinking so you can learn more effectively. From brainstorming to comparing/contrasting, from sequencing to seeing analogies, Thinking Maps® are tools that can aid you in keeping your ideas organized and your research easy to read. They also provide ways to stimulate your thinking.

In the following lesson, you will learn how to hone your study skills to make the most of your study time and learn all you can.

Lesson Review

1. **Give an example of when you would use a Circle Map.**
2. **Why would you not want to use a Bubble Map for brainstorming?**
3. **Explain how a Brace Map can be used in the study of geography.**
4. **Define the term *analogy*.**