

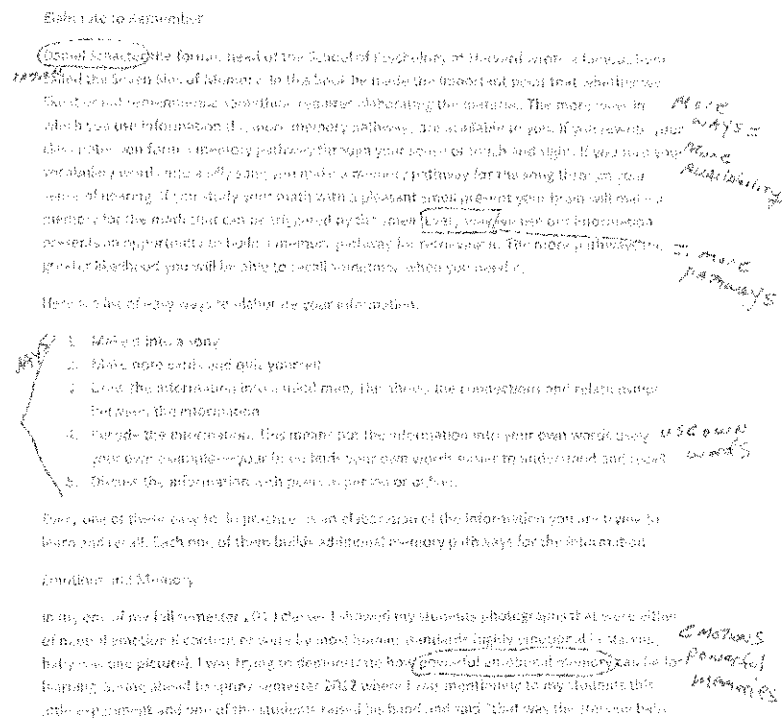
### Annotation: A Multisensory Approach to Textbook Reading

Ask teachers what drives them crazy about students, and chances are they will answer, "They don't do their readings." When students are asked which part of college learning they like the least, many give "reading" as the answer. For most individuals, textbooks are hard to read. For most courses, textbooks don't include a story to follow or a mystery to solve. Textbooks for many classes simply list dry facts and definitions. Facts and basic definitions are vital to understanding a subject, but because they are not often fascinating, it can be difficult to maintain focus on and comprehend the material. Reading textbooks can also be difficult because silent reading is a unisensory experience—only our eyes are involved. In addition, reading is a visually heavy process. In fact, reading is the slowest way humans input information into their brains (Dehaene, 2009). One way to make the reading process easier and more effective is to make it multisensory. You can do this by annotating your text while you read (see Figure 4.3).

Annotation is a simple process of making notes in the margin of a textbook that identifies, in your own words, the important concepts, ideas, facts, and details. In 2014 Carol Porter-O'Donnell reported that there are multiple research studies supporting the use of annotation to improve learning. By using your pencil, you add the sense of touch to the reading process, making it multisensory. And there are two additional benefits of annotation. First, by translating what you are reading into your own words, you are identifying whether you understand what you are reading. If you can't translate the material, you don't yet understand it. The process of translation greatly adds to your comprehension and recall of the text material. Second, using your own words is one of the best ways to make remembering what you read easier. Your own words are your most familiar pattern, and using familiar patterns makes learning easier. (The use of patterns in learning and memory will be explored in the next chapter.)

Learning and recall are made significantly easier when you use a multisensory approach. The more senses that are involved, the more memory pathways are created and the more opportunities are available

Figure 4.3. Sample of an annotated textbook page.



to recall the information. If at all possible, never try to learn or study using just one sensory pathway.

### Athletes and Multisensory Learning

One advantage athletes have in performing their sports over classroom learners is that almost all of their learning is multisensory. Most athletic skills are developed by a combination of touch, movement, sight, and verbal instruction. This very multisensory approach may be one of the reasons many learners prefer the learning process used in their sport over classroom learning. As you work to improve in your sport, take time to notice the different sensory processes you are using to