3.1: Chapter 17: Words of Wisdom: Thinking Critically and Creatively

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Critical and creative thinking skills are perhaps the most fundamental skills involved in making judgments and solving problems. They are some of the most important skills I have ever developed. I use them everyday and continue to work to improve them both.

The ability to think critically about a matter—to analyze a question, situation, or problem down to its most basic parts—is what helps us evaluate the accuracy and truthfulness of statements, claims, and information we read and hear. It is the sharp knife that, when honed, separates fact from fiction, honesty from lies, and the accurate from the misleading. We all use this skill to one degree or another almost every day. For example, we use critical thinking every day as we consider the latest consumer products and why one particular product is the best among its peers. Is it a quality product because a celebrity endorses it? Because a lot of other people may have used it? Because it is made by one company versus another? Or perhaps because it is made in one country or another? These are questions representative of critical thinking.

The academic setting demands more of us in terms of critical thinking than everyday life. It demands that we evaluate information and analyze a myriad of issues. It is the environment where our critical thinking skills can be the difference between success and failure. In this environment we must consider information in an analytical, critical manner. We must ask questions—What is the source of this information? Is this source an expert one and what makes it so? Are there multiple perspectives to consider on an issue? Do multiple sources agree or disagree on an issue? Does quality research substantiate information or opinion? Do I have any personal biases that may affect my consideration of this
information? It is only through purposeful, frequent, intentional questioning such as this that we can sharpen our critical thinking skills and improve as students, learners, and researchers. Developing my critical thinking skills over a twenty year period as a student in higher education enabled me to complete a quantitative dissertation, including analyzing research and completing statistical analysis, and earning my Ph.D. in 2014.

While critical thinking analyzes information and roots out the true nature and facets of problems, it is creative thinking that drives progress forward when it comes to solving these problems. Exceptional creative thinkers are people that invent new solutions to existing problems that do not rely on past or current solutions. They are the ones who invent solution C when everyone else is still arguing between A and B. Creative thinking skills involve using strategies to clear the mind so that our thoughts and ideas can transcend the current limitations of a problem and allow us to see beyond barriers that prevent new solutions from being found.

Brainstorming is the simplest example of intentional creative thinking that most people have tried at least once. With the quick generation of many ideas at once we can block-out our brain’s natural tendency to limit our solution-generating abilities so we can access and combine many possible solutions/thoughts and invent new ones. It is sort of like sprinting through a race’s finish line only to find there is new track on the other side and we can keep going, if we choose. As with critical thinking, higher education both demands creative thinking from us and is the perfect place to practice and develop the skill. Everything from word problems in a math class, to opinion or persuasive speeches and papers, call upon our creative thinking skills to generate new solutions and perspectives in response to our professor’s demands. Creative thinking skills ask questions such as—What if? Why not? What else is out there? Can I combine perspectives/solutions? What is something no one else has brought-up? What is being forgotten/ignored? What about ______? It is the opening of doors and options that follows problem-identification.

Consider an assignment that required you to compare two different authors on the topic of education and select and defend one as better. Now add to this scenario that your professor clearly prefers one author over the other. While critical thinking can get you as far as identifying the similarities and differences between these authors and evaluating their merits, it is creative thinking that you must use if you wish to challenge your professor’s opinion and invent new perspectives on the authors that have not previously been considered.

So, what can we do to develop our critical and creative thinking skills? Although many students may dislike it, group work is an excellent way to develop our thinking skills. Many times I have heard from students their disdain for working in groups based on scheduling, varied levels of commitment to the group or project, and personality conflicts too, of course. True—it’s not always easy, but that is why it is so effective. When we work collaboratively on a project or problem we bring many brains to bear on a subject. These different brains will naturally develop varied ways of solving or explaining problems and examining information. To the observant individual we see that this places us in a constant state of back and forth critical/creative thinking modes.

For example, in group work we are simultaneously analyzing information and generating solutions on our own, while challenging other’s analyses/ideas and responding to challenges to our own analyses/ideas. This is part of why students tend to avoid group work—it challenges us as thinkers and forces us to analyze others while defending ourselves, which is not something we are used to or comfortable with as most of our educational experiences involve solo work. Your professors know this—that’s why we assign it—to help you grow as students, learners, and thinkers!