1. LEARNING OUTCOME

Students will become aware of the career-readiness competency Critical Thinking/Problem Solving and connect this competency and the skills associated with it to the assignment topic.

2. OBJECTIVE

The following exercises are designed to help you identify your critical thinking skills and put them into practice. As you move through them, reflect on what you believe are your most significant strengths and weaknesses when it comes to thinking critically. The point is to take a common question or assumption, review a couple of available sources, and come to a general conclusion about that assumption based on what is front of us today.

3. CRITICAL THINKING/PROBLEM SOLVING DEFINED

To be a critical thinker means to be a reflective thinker. It means we can look at an issue or problem and consider different aspects, perspectives, or dimensions of the issue, and decide what works, what is real, what is – or could be – effective, and what the most important questions are!

In short, we need to be able to move beyond simply absorbing and understanding material. We need to be able to evaluate it. Careful analysis and evaluation of data may lead us to question it and, ultimately, to try and make changes. Although most of us acquired the ability to memorize while in middle and high school, mental storage of copious amounts of information is not particularly useful – especially when these “facts” change rather often (Schafersman, 1991).
4. EXERCISE ONE

Familiarize Yourself with the Following Information About the Importance of Critical Thinking/Problem Solving

The Information Age

The “information age” results not only in greater amounts of information but also in frequent changes and updates to information and to the speed with which we may react to such changes. The rapid pace of change which is now characteristic of society can challenge our ability to be effective problem solvers (Zorn, 2002).

Instead of focusing on what to think, having strong critical thinking skills means we know how to think, too (Clement & Lochhead, 1980; Schafersman, 1991).

Information Overload

Information overload is a reality for most of us. The nature of information has changed, often becoming more complex. Further, the interconnectedness of individuals via digital technology, coupled with the interconnectedness of societies (i.e., globalization) necessitates an ability to sift and sort … to review, analyze, and evaluate. It is important to be able to sort out the “good,” the “bad,” and the “ugly.” We want to move beyond just being a consumer of knowledge to being an analyzer, and possibly, a producer of it.

In the Work Place

To assess, evaluate, and reassess, however, is a nuanced process. It is a skill, just like being able to write a clear essay or give an engaging presentation. It is a vital skill for citizens, students, and employees. Increasingly, employers wish to hire individuals with the capacity to think critically on the job and about the job.
5. EXERCISE TWO

I. Consider the Following Questions and Information About Gender:

a. Are Females and Males Very Different From One Another?

Generally speaking, sociologists and psychologists who study gender view this debate in terms of the Gender Differences (or Gender Complementarity) Perspective or the Gender Similarities Perspective.

A gender differences point of view assumes that there are many, real, large differences between women and men and that these differences can be complementary. A gender similarities point of view, on the other hand, assumes that women and men are more alike than they are different (Hyde, 2005).

A number of scholars have attempted to address this question. It is a complicated one. In large part, it is complicated by the fact that it is difficult to separate the effects of genes from environment. In other words, when we look at adult men and adult women, are we seeing differences based upon biology or from socialization?

b. What is the average size of observed differences between women and men?

Fortunately, a team of researchers undertook a large-scale study to examine this question. Ethan Zell, Zlatan Krizan, & Sabrina Teeter (2015) performed a meta-analysis of over 20,000 studies focused on this research question. Collectively, these 20,000+ studies included over 21,000 measures of nearly 400 traits. Observed traits included those related to thoughts, feelings, behaviors, intellect (attention, memory, and spatial ability, for example), personality (temperament, interests, and aggression, for example), communication styles, well-being, and physical skills, among others.

After a careful review, Zell and his colleagues separated the variables into one of five categories, based upon the size of the observed difference: Very large, large, medium, small, and negligible to non-existent.

The authors found that the average, absolute difference between males and females across all domains was small. The majority of effects were classified as “small” (46%) or “negligible to non-existent” (39%). Only 2% of effects were classified as “large,” and only 1% as “very large” (Zell, Krizan, & Teeter, 2015).
c. What can we conclude from the Zell et al. research? Is there support for the Gender Differences/Complementarity Perspective or for the Gender Similarities Perspective?

Of course, there are many other resources to consider on this subject. A strong, critical thinking approach would most likely lead us to want to explore this question further.

What’s most important, perhaps, is not the conclusion or answer to which we arrive, but how we arrive at it. Are we thinking critically? Evaluating the credibility of sources? Are we accepting what is presented to us at face value without reflecting on it carefully and analytically?

II. Class Discussion

An important aspect of critical thinking is to examine the credibility and reputation of information sources.

- How could we evaluate the credibility of the Zell study?
- What criteria would you use?
- If our conclusions contradict conventional wisdom on this issue, what can we learn from this inconsistency?
- Why and how can an idea be presented as “fact” when credible data sources appear to challenge it?