

# Teaching Critical Thinking on the Screen: Using the SEE-I Method with Cloud- Based Presentation Software

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**Abstract.** To teach critical thinking skills, this resource review discusses the use of an assignment utilizing the SEE-I method of critical thinking via free online presentation software. Included in the manuscript is a ready-to-use exercise that instructors may utilize. A survey of students (n=21) examined attitudes toward the assignment as well as open-ended questions. The data indicates that a majority of students felt that the SEE-I assignment assisted them in thinking critically about an organizational behavior concept. Results are discussed as well as limitations.

**Keywords:** critical thinking, SEE-I, classroom assignment, cloud-based presentation software, Microsoft Sway.

## 1. Introduction

Critical thinking (CT) is a “crucial capability” for business students (Errington & Bubna-Litic 2015: 774). However, business textbooks “only weakly support the development of students’ capacity for critical thinking” (Errington & Bubna-Litic 2015: 774), and anecdotal evidence points toward a lack of critical thinking skills in new graduates (Burstein 2014; Dishman 2016). Therefore, the inclusion of exercises that promote CT in the undergraduate and graduate business classroom is imperative.

This article introduces a method of teaching CT using the SEE-I method via the use of cloud-based presentation software. Specifically, this article will introduce the use of Microsoft Sway. This resource review will examine definitions of critical thinking, introduce the SEE-I method, present a lesson plan using this method for students, and show initial data used to assess the effectiveness of this strategy.

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## **2. Defining Critical Thinking**

There are many ways of defining CT; however, a comprehensive review of these definitions is outside the scope of this work. CT for this assignment can be defined as “the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and/or evaluating information” (Paul & Elder, *Defining critical thinking*, n.d.). Furthermore, the current manuscript will focus on two key facets of CT. Many scholars associate CT with metacognition, or “thinking about thinking” (Paul & Elder 2004; Magno 2010). In this conception of CT, it is a process antithetical to snap judgements or surface level thinking. CT should include an analysis of thinking, evaluation of thinking, and improvement of thinking. Inherent in this is a set of “values that transcend subject matter divisions” that include “clarity, accuracy, precision, consistency, relevance, sound evidence, good reasons, depth, breadth, and fairness” (Paul & Elder, *Defining critical thinking*, n.d.).

Another key characteristic of CT is the quality of outcomes (Halpern, 1999). In other words, CT leads agents to improvements in knowledge acquisition and retention, critical reflection, and task performance (Dahl, Peltier, & Schibrowsky 2018). This characteristic of CT is often made in terms of quantifiable measures such as profits or grades (e.g., D’Alessio, Avolio, & Charles 2019). The assumption appears to indicate CT should not be simply analysis and reflection but also application and execution. If someone thinks better, he or she should perform better.

The lesson presented here requires students to both “think about thinking” (metacognition), and also act on that thinking (deciding and executing). While the aim of this manuscript is not to provide a detailed literature review on CT, Appendix A provides instructors with a broad assortment of resources that can shed further light on the topic.

## **3. The SEE-I Method**

The exercise used in this lesson is a modification of the SEE-I Method (State, Elaborate, Example, Illustration) proposed by Paul & Elder (2004) and popularized by Nosich (2012). To use the SEE-I method, students choose an important or difficult concept within a discipline. The first step of the exercise is to State the concept in a succinct, (preferably) one sentence description. The statement of the idea should be complete but simple. This will often be a dictionary definition or a meaning provided by a credible outside source. The second step is to Elaborate on the stated definition. Often this statement begins with a phrase such as “in other words”. In the elaboration step, the student puts the concept into his/her own words.

The third step is to provide an Example. This could include an incidence of the concept in action or how it might manifest itself. The statements often begin with the phrase, “for example”. Finally, students provide an Illustration. The illustration statement requires students to produce a mental image which helps solidify the concept. This could include an actual photograph, graph, concept map, metaphor, or simile. Table 1 outlines the components of the SEE-I approach and provides an example from organizational behavior (i.e., personality).

Anecdotally, students often have difficulty differentiating between the example and illustration statements. To help solidify the difference, examples show the concept in action while an illustration often shows the concept’s relationship to a different, more familiar concept. For a non-academic illustration, giving an example of an internal combustion engine could include a specific make of car (e.g. Corvette). However, an illustration could include a picture of a runner working out his/her muscles. The muscles illustrate propulsion. Muscles are to a human what an engine is to an automobile. Muscles are not the same as an engine, but they illustrate the same concept with a more familiar concept. In the example in Table 1, the organizational concept of personality is used to differentiate between example and illustration. For the example portion, a specific type of personality (Type A) is listed and the behaviors that are often exemplified by this personality type. Then for illustrate an image of an individual’s head filled with multiple icons that could represent the make-up of a personality or personality type is included.

The SEE-I Method has the benefit of forcing students to discover meaning through self-directed knowledge acquisition. Each step presents a series of challenges. The first step (stating the idea) requires students to locate a reputable source that can explain an idea. The definitions are often difficult and unfamiliar. Elaborating on the idea (step two) requires students to translate the concept into their own, albeit familiar, words. Step three requires students to find a proper context for the concept. Finally, the last step forces students to link the unfamiliar concept with more familiar concepts. Rather than explaining a concept, students have created the meaning within themselves. Further, a well-executed SEE-I exercise can often be done individually but also in small groups where the give and take of interaction allows students to learn in community rather than solitude.