

Overview

Improving observation skills is more involved than just remembering to “pay attention.” We need to understand how our brains work for us—and even against us—to gain strategies for managing distractions and improving our observation skills.

This case study, consisting of a website and an instructor guide, uses a “flipped classroom” model: students complete a web-based experience for homework that includes content, videos, activities, and an “Idea Log” and then participate in additional active learning activities in class to apply and extend the content. The case study, which is contextualized with Advanced Manufacturing industry examples, is designed to be engaging, and even surprising, and help students connect their prior experiences and observations to content based on research and science.

Objectives

Students will:

- Articulate the importance of paying attention with intention
- Learn about potential safety and financial consequences of distracted work
- Identify common distractions at work
- Identify strategies for managing distractions
- Learn about the pitfalls of shift changes
- Identify strategies for attending to shift changes

Time Required

Students will spend 1–1.5 hours to complete the web-based case study. The in-class activities will take a full class period (45–90 minutes) with optional activities for extending the instruction.

Materials Required

Post-It notes, or index cards and tape.

Requirements / Assessment

1. Students are expected to complete the case study module outside of class.
2. Students are expected to complete the Idea Log thoughtfully and submit to Instructor digitally or in print.
3. Students are expected to actively participate in in-class activities.
4. Students should be assessed based on completion and thoughtfulness of Idea Log, and participation in class activities.

Learning Plan At-A-Glance

1. Instructor preparation: review online case study.
2. Introduce topic in class and assign online case study as homework.
3. Follow-up in class: Facilitate activities and discuss.
4. Optional group project to extend topic.

Learning Plan Detail

Preparation

Before assigning to students, plan on spending 45–60 minutes to review the case study:

<https://casestudies.mit.edu/observation/>

In-Class Introduction to Topic:

1. Introduce the topic of observation skills to students. Ask students:
 - Why do you think that employers value good observation skills?
 - On a scale of 1-10, how would you rate your own observation skills?
 - What do you think you could do to improve your observation skills?
2. Assign web-based case study as homework. It will take most students 1–1.5 hours to complete, so it will be helpful to give students a few days before it is due.
3. The case study provides several places where students are asked to write down their ideas, questions, and experiences in an Idea Log. On the last screen, students may download their Idea Log as PDF or have it emailed to them. Remind students to bring their Idea Log to class (either print or on computer).
4. If you want to assess the Idea Log for completion and thoughtfulness, students may submit it via email, print copy, or even upload it to your course Dropbox/website.

Follow-up Discussion and Activities in Class [45–90 minutes]

1. [5 minutes] At the beginning of class, ask students to think about their experience going through the online case study and what they learned, and then share on Post-It notes, index cards, or torn pieces of paper (one item per piece of paper):
 - One word
 - One thing you learned
 - One question you have

Designate areas of your classroom walls for each category and ask students to stick their notes on the walls. The goal of this activity is to quickly capture the ideas of every student and use those ideas as a way to start the discussion. While something as simple as a word will not tell you much about what the students understood about the case study, the explanations they later provide will say a lot.
2. [5–10 minutes] Ask students to review each other's thoughts and put a check mark on the three ideas for each category that they think represent the biggest take-aways from the case study. Students may vote for any idea or question other than their own; this helps them critically read each other's work.
3. [20–45 minutes] Identify 2–3 words, statements, and questions that are the most popular

and share them with the class. Facilitate a whole group discussion to get students sharing what they learned with a focus on how this relates to the workplace, and identifying strategies that they can use to improve their own observation skills on the job. Possible discussion questions:

- The most popular words you chose are _____. How do you think these words briefly describe the essence of the case study?
 - The things you identified that you learned are _____. Are these the most important take-aways about observation skills?
 - You identified several questions. Let's try to answer them based on what we know or figure out what else we need to learn to answer these questions.
 - What was the most surprising thing you learned about observation skills?
 - What are the best ways that you can personally improve your observation skills?
 - What might you say to a potential employer about your own observation skills to get him/her to hire you?
4. [10–30 minutes] Small group discussion options, if you have the time. Small groups provide an opportunity for all students to share.
- Share a time when you missed something or didn't observe it well.
 - When/where are you most susceptible to inattention blindness?
 - What strategies can / do you use to improve your own attention blindness?

Optional Extension [2 class periods]

This optional project gives students an opportunity to deepen their knowledge even further by teaching others how to improve their observation skills. Give students one class period to prepare their presentations and then present their work at the next class.

1. Place students in teams of 3–4.
2. Ask the teams to imagine that they are in charge of training employees at a small advanced manufacturing company to improve their observation skills. Each team should prepare a presentation that outlines how they would structure a 2-hour employee workshop.
3. Groups work best when each person has a role. Possible roles for this project and the types of things that person should say:

Taskmaster/Coordinator:

- We've spent enough time on brainstorming, let's decide which ideas are our favorites.
- How should we sequence the workshop?
- Let's get back to the main point.
- We have 10 minutes left.

Recorder:

- Here's what we brainstormed.
- Here's our presentation so far.

Group Understanding:

- How well are we collaborating?
- Has everyone contributed to the presentation?
- Let's each choose a part of the presentation so that we can show how we were all involved.

Quality Control:

- Is this our best work?
- Is the presentation written well?

4. To begin the teamwork, ask students to go around and brainstorm answers to “What can we do for the workshop?” Students listen to each other and begin their ideas with, “Yes, and we could do this _____.” The “yes and” approach to brainstorming yields better ideas and better teamwork than the “no but” approach because the focus is on building up rather than tearing down. The teams should round robin brainstorm until everyone is out of ideas.
5. Resources: Team projects can be a valuable part of student learning when they are structured well. These resources provide useful strategies for facilitating group work and other active learning activities:
 - [Three Pillars of Cooperative Learning](#)
This article provides a research-based framework for promoting collaborative work in your classroom.
 - [Coping with Hitchhikers and Coach Potatoes on Teams](#)
This article provides strategies for dealing with the students who dominate the group or who are content to let everyone else do the work.
 - [How About a Quick One?](#)
This article provides several ideas for active learning activities, including group work.

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