Module 1-2: Lab Report Rhetorical Analysis:

Rhetorical situation examples of engineers

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Objectives/Student Outcomes

- Objectives:
  - This slide introduces example rhetorical situations that engineers often communicate in. This will prompt engineering students to think of the genre expectations of engineering literacies including lab reports.
- Student outcomes: After completion of this module component, students are able to
  - Identify the audience, writer, purpose, and the context of various rhetorical situations for engineers.
  - Describe why engineering literacies have the distinct genre features compared to the literacies of other disciplines (such as humanities).

What is the rhetorical situation?

- It means the circumstances in which you communicate.
- A simple example of rhetorical situation and genre
  - Situation: Last weekend, I gave my warmest toast at my best friend's wedding.
  - Rhetorical situation
    - Genre: A wedding toast
    - Writer (rhetor): I
    - Audience: the party guests and the couple
    - Purpose: making a wish the new couple health and good luck in their marriage, entertaining guests, etc

Why understanding the rhetorical situation important in writing?

- How to make my wedding toast hilarious?
- Just like the wedding toast, strong writing requires
  - To understand the rhetorical situations; and
  - To identify the characteristics of writer, audience, purpose, and context.
- Typical factors affecting the rhetorical situations

Audience	Writer	Purpose	Context
Age, social class, education, culture, expectations, etc	Age, experiences, gender, location, education, etc	Entertain, inform, shock, persuade, educate, call to action, etc	Timing, location, current events, cultural significance, etc

Engineers' rhetorical situation (1)

- Genre: Product testing technical reports
- Writer: an entry-level mechanical engineer working in a global company design group.
- Audience: other engineers, quality assurance people, managers, and outside vendors.
- Purpose: inform the test procedures and testing results of products to measure the product functions and identify errors.
- Context: These reports are often required during the new product prototype phases before the high-volume production. All the audiences review every single report contents, such as testing data, very carefully. Clear documentation about the identified errors and time-sensitive delivery are very critical because fixing the problems during the prototyping phase is a lot less expensive than doing the same thing during the production phase.

Engineers' rhetorical situation (2)

- Genre: Emails
- Writer: an entry-level maintenance engineer working in a manufacturing plant (classified as small business).
- Audience: suppliers or contractors.
- Purpose: a series of short communications or long discussions on sourcing equipment/parts, scheduling installation, testing of installed equipment, etc during manufacturing plant expansion.
- Context: These emails are often short, back-and-forth messages with either different suppliers or contractor. Often, the drawings or separate documents are attached; therefore, a lot of information from the attached are referred on the emails. They are often very time-sensitive and require decisions or solutions.

Engineers' rhetorical situation (3)

- Genre: Emails
- Writer: an entry-level design engineer working in a R&D part of a global company.
- Audience: peers in a group (team).
- Purpose: providing information (prototype testing results, cost analysis/models, research results, etc) to the group to make decisions on product design and manufacturing.
- Context: Making sure the product/production design solutions the team comes up with can be built in a mass production environment. Many emails contain scientific and technical terms, which often come from technical research papers.