



# FAILURE ANALYSIS & PREVENTION

## final learning reflection

enr 3820

### OVERVIEW

As you know, one of my goals for you in this course is that you further develop your self-directed learning skills. At least for me, a big part of self-direction is learning to reflect on my own learning processes and outcomes. For this assignment, I ask you to reflect on three different aspects of your learning in this course:

1. Your personal goals,
2. Your performance or learning outcomes in the different competency areas, and
3. Your development of self-directed or lifelong learning skills.

Some basic guidelines for each area are provided below. My guess is that for some of you, these three areas of reflection will have some overlap. If you prefer to merge all of your thoughts into an integrated self-reflection, go for it. Do what works for you.

In terms of length, I'm thinking 1-2 pages here. But again, do what works for you. Please submit your self-reflection to me via email (word or pdf format).

### 1. PERSONAL GOALS

Earlier in the term I asked you to spend some time pondering your learning goals and competency development in this course. Most of you took the time to provide a written statement of your personal goals to me back in September. If you didn't submit this assignment, I hope that you at least spent time *thinking* about personal goals and your progress toward them.

For this assignment, please take a moment to look back on your goals, and provide reflective comments on your progress toward the goals over the semester, changes in or adjustments to your goals, challenges in attaining your goals, insights regarding your personal goals, etc. Did you make some progress toward your goals? Did your goals change? Did you identify new goals during the course? Basically, write something about your goals and progress toward them.

### 2. PERFORMANCE OR LEARNING OUTCOMES

You've completed some work, you've done some self-assessment of your work, and you've seen some of my assessments of your project deliverables. What do you think of your level of performance or your growth in the different competency areas? As a reminder, this course emphasized technical communication (written, graphical, and oral), qualitative analysis, quantitative analysis, and diagnosis in all of the project work. We also emphasized teamwork, and we have used the CATME survey for peer evaluation of teaming effectiveness. Basically, I know how *I* feel about your failure analysis work in the course, but I would very much like to know how you feel about it. Judge thyself.

### 3. LIFELONG LEARNING

As you know, a big part of the *Failure Analysis and Prevention* course is development of skills and attitudes that help you attain success in unstructured learning experiences that may promote development of skills and attitudes relevant to lifelong learning.<sup>†</sup> For all of the course projects, you set goals, identified learning strategies, monitored and controlled your progress, found resources, managed your time and effort, etc.

I believe that you are much better equipped to reflect upon and assess your lifelong learning skill development than I am. As such, I ask each of you to write a statement of the role of the *Failure Analysis* course in your development as an autonomous learner. Some aspects of the course experience that you may consider reflecting upon include the following:

- *Personal attributes and attitudes.* This relates to your learning style, perseverance, motivation, interest, self-efficacy, confidence, ability to relate assignments to your own values or context, etc. Did you learn anything about

<sup>†</sup> Olin's current definition of life-long learning competency is: *Student is able to identify and to address his/her own educational needs in a changing world. One of our course learning objectives is aimed directly at life-long learning skill building: Demonstrate a capacity for self-directed learning, including goals-setting and selection of learning strategies, time and effort management, motivation management, resource discovery, and self-reflection and self-assessment.*

what drives you or fails to drive you, the nature of your motivation (e.g., intrinsic or extrinsic), or how your interests relate to your behaviors in the classroom?

- *Interactions with others:* All of you had to manage instructor and peer interactions throughout the semester, and some of you had interactions with folks outside of our classroom. Did you learn anything about your interaction style, management of relationships, help seeking, or challenges in “co-regulating” or collaboratively managing your project work?
- *Cognitive and metacognitive development:* You are asked to design, initiate, and manage projects and experiments throughout the semester. You are in control of much of your content acquisition and learning processes. You identify problems and knowledge needs, you establish goals, you diagnose issues, and you plan, monitor, and modify your learning strategies. You likely reflect on your experiences and adjust your thinking, behaviors, or processes in response to your self-evaluations. Did you learn anything new about how you learn, or about how you think about your own learning processes?
- *Identification, use, and evaluation of resources and tools:* For our projects, you need to locate relevant information sources, assess the quality and relevance of the information, and demonstrate the ability to work with this information by contextualizing it and adding your own interpretation. You must find effective ways to communicate your findings to your instructors and peers. In addition, you select tools (equipment, software, etc.) that are appropriate for your project goals. In some cases, you may have taught yourself how to use new tools or techniques. Any new insights on your capacity to find and use resources?

Please provide some thoughtful reflection on your lifelong learning development, not just a statement of what you've done in the course. You certainly do not need to comment on all of these areas; just pick the things that stand out in your mind for better or for worse. Has the course format helped your skill building in these or other areas? Have you learned anything about your learning style, motivations, thinking, behaviors, or needs?

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