
Reflections

Why Reflect?

Reflection, or meta-cognition, is a key step in any learning process. Our brain grows by making connections and building habits. Study after study has demonstrated the effectiveness of reflection. Reflection is personally rewarding when you use it to understand something that is meaningful to you.

Reflection in this course

Ideally, reflection does not feel forced. In hopes of catering to each of you as individuals I have designed many different ways to reflect. I encourage you to choose those options that actually feel that they make a difference in your life. I also encourage you to step outside your comfort zone and try something new.

I would like you to spend *at least* 30 minutes a week on meta-cognition. This could be done all at once, or you could have several small reflections throughout the week. If you make thoughtful reflection a habit you will see improvement.

Early in the semester activities

- Learn about evidence based study habits.

<https://medschoolinsiders.com/study-strategies/7-evidence-based-study-strategies-how-to-use-each/>

Write a reflection about what study habits you currently use and what habits you would like to use.

- Learn about SMART goals.

<https://www.elegantthemes.com/blog/business/smart-goals>

Write a few SMART goals for yourself. If you do this early in the semester you could do a reflection later in this semester reflecting on your goals and setting new goals.

Reflections for any time

- Khan academy has a series on growth mindset.

<https://www.khanacademy.org/college-careers-more/learnstorm-growth-mindset-activities-us/high-school-activities>

Pick a module, watch the videos you find useful, and answer some reflection questions.

- During class keep your ears open for statements made by you or someone else that reflect a growth mindset or a fixed mindset. Write down these statement, the context they were made in, and your thoughts about them.
- Revise an exam and submit it along with your reflections on the exam. *see exam revision in the syllabus.*
- Write a reflection on your group dynamics this semester. Go back and read our group norms and group roles. What would you add to that conversation now? How could you make your own group work more productive?

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- Write a reflection about the class reading for this week. Possible prompts include:
 1. What are the most important parts of the reading?
 2. What questions do you have about the reading?
 3. Make connections between the reading and previous math concepts.
 - Pick a resource that interests you on Lucas' website and write a reflection on it.

<https://lucasvanmeter.github.io/learning.html>

- Design your own meta-cognition exercise or report on something you are already doing but not on this list. Please contact me about this option and I am happy to help incorporate whatever meta-cognition you find most helpful and meaningful.

End of semester reflections

- Complete the final exam wrap-up.
- Learn what a concept map is

<https://ctl.byu.edu/tip/concept-mapping>

Make your own concept map for concepts covered in this course (and things you've learned in other course that connect with it).