Components of a Successful Academic Mindset

I. Beliefs about Learning that don’t serve you well (common misconceptions)
II. Metacognition and its consequences
III. Levels of Processing
Beliefs about Learning that don’t serve you well

* Learning is fast
* Being good at a subject is a matter of inborn talent rather than hard work,
* Knowledge is composed of isolated facts
* I’m really good at multi-tasking, especially during class or studying
Attentioal Blink

* Switching attention is time consuming and effortful
  * 20 alerts and you’ve wasted an hour (without checking anything)
* The average Facebook visit is about 20 minutes
  * 3 visits and you’ve wasted an hour
* Checking texts, Twitter, etc. wastes at least a few minutes every time
* There is no such thing as a momentary distraction
Metacognition

* A student’s awareness of their own level of understanding of a topic
* Metacognition distinguishes between stronger and weaker students
* One of the major tasks for a new student (undergraduate or graduate) is developing good metacognition
The Irony of Poor Metacognition

* Students who have the poorest metacognition have no clue how weak their understanding of a concept is.
* Part of being incompetent is not understanding just how incompetent you are.
* So the students who *most* need help with understanding are the ones who *don’t believe they need it.*
Which of the following is the MOST important ingredient for successful learning?

1. The intention and desire to learn
2. Paying close attention to the material as you study
3. Learning in a way that matches your personal Learning Style
4. The time you spend studying
5. What you think about while studying
Stephen Chew on Levels of Processing

* [http://www.youtube.com/watch?v=9O7y7XEC66M](http://www.youtube.com/watch?v=9O7y7XEC66M)

* [http://www.samford.edu/how-to-study/](http://www.samford.edu/how-to-study/)
Levels of Processing

* Shallow processing focuses on spelling, appearance and sound.
  * Rote memorization of facts
  * Flashcards with isolated facts
* Deep processing focuses on subjective meaning.
  * Relating new information to prior knowledge or other information
  * Making information personally meaningful
Implications for Learning

* Intention and motivation to learn are not important
* Attention and amount of study is necessary, but not sufficient for learning
* Learning strategy has a huge impact on learning
  • Shallow processing undermines learning, even when intention and motivation are high
  • Deep level of processing is critical for learning
  • Elaborative, distinctive, personal, appropriate
These findings are strongly counterintuitive

* All study is effective, only amount, intensity, and desire matter
  * Not all study is the same; some is useless and some is counterproductive
* Motivation automatically improves study effectiveness
  * Motivation without deep processing is ineffective
* Effort equals learning
  * Learning is hard work, but not all hard work leads to learning
Elaboration: How does this concept relate to other concepts?

Distinctiveness: How is this concept different from other concepts?

Personal: How can I relate this information to my personal experience?

Appropriate to Retrieval and Application: How am I expected to use or apply this concept?

These properties lead to development of connected understanding.
1) Set a Goal (1-2 min)
   • Decide what you want to accomplish in your study session
2) Study with Focus (30-50 min)
   • Eliminate all distractions and temptations
   • Use deep processing
3) Reward Yourself (5-10 min)
   • Take a break—call a friend, play a short game, get a snack
4) Review (5 min)
   • Go over what you just studied
   • Recall without looking
Components of a Successful Academic Mindset

1. I belong in this academic community
2. My ability and competence grow with my effort
3. I can succeed at this
4. This work has value for me
For Further Reading

- Applying the Science of Learning in Education

- Pathways To Improvement: Using Psychological Strategies to Help College Students Master Developmental Math


- Teaching Adolescents To Become Learners: The Role of Noncognitive Factors in Shaping School Performance
