Achieving Product through Process: Embracing a Process Mindset in a Product-Driven World

Jim Lingo and Barry Tolchin

Cultural Perspective

- Cultural focus on results, product
  - Job market is competitive, employers want higher GPA
  - If you don't pick the right major, you can't get a job
    - Major = Career/Job
  - There is a "prestige" factor with some majors
    - Competitive means it is desirable
  - When students are asked how they are doing in school, are they asked what they are learning, or their GPA?
  - Students who don't graduate in 4 years considered a failure?

Institutional Perspective

- Institutional focus on results, product
    - High percentage of course grade based on exams
    - Scholarships, awards, honors for students with high GPAs
    - One of the better institutions, still much is product-oriented
    - Many times, we have to "sell" the experiential side of things

Student Perspective

- Student focus on results, product
  - Students are constantly focused on grades
  - Less focus on learning
  - First semester students ask about internships for second semester
  - Want a four-year plan at Orientation
 - College is a transaction, not an experience

Effect on Student Experience

- Students choose less challenging courses
  - "What's an easy Gen Ed course?"
  - Rate my professor
- Poor coping skills
  - Difficulty overcoming academic and personal obstacles
  - "The professor was bad."
- "Brain Dump"
  - Cram for an exam, forget the material for the next course
- Lack decision-making skills
  - "I failed the first two midterms, but I thought I could pass the class"
  - Not being realistic with expectations
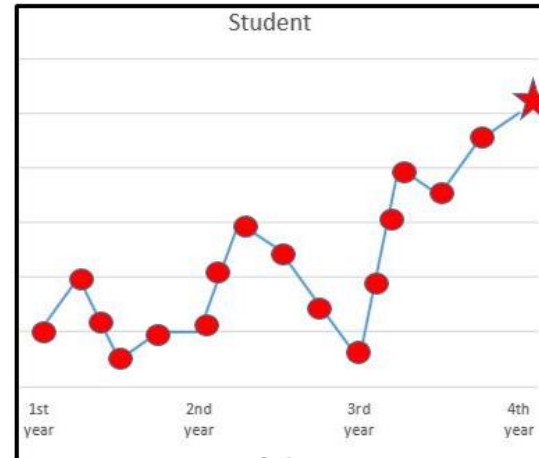   - "I have a 2.0. If I get a 4.0 each of the next two semesters, I will get into that major."

Defining Success

What students think college is like?
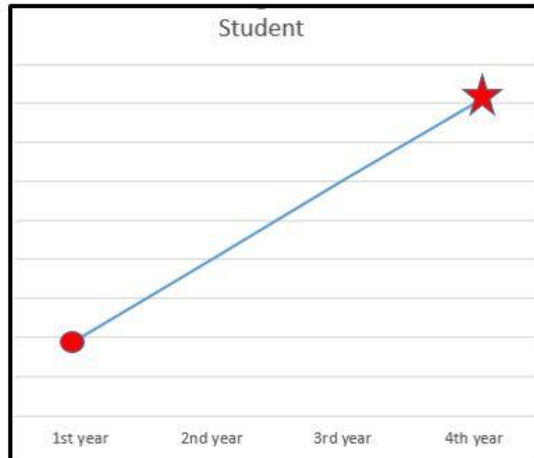
What college is actually like?

Growth vs. Fixed Mindset – Carol Dweck

- Fixed mindset
    - Believe qualities or talents are fixed traits
    - People have a certain level of intelligence, and it cannot be improved
    - Talent creates success, not amount of effort
- Growth mindset
    - Everyone has basic abilities, but these can be developed over time
    - Yes, people are more naturally talented in some areas, but you have control over the amount of effort you put forth

Growth vs. Fixed Mindset

"Failure is an opportunity to grow"
GROWTH MINDSET
"I can learn to do anything I want"
"Challenges help me to grow"
"My effort and attitude determine my abilities"
"Feedback is constructive"
"I am inspired by the success of others"
"I like to try new things"

"Failure is the limit of my abilities"
FIXED MINDSET
"I'm either good at it or I'm not"
"My abilities are unchanging"
"I don't like to be challenged" "I can either do it, or I can't"
"My potential is predetermined"
"When I'm frustrated, I give up"
"Feedback and criticism are personal"
"I stick to what I know"

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Product-focused Mindset

- Focused on grades, GPA, finishing homework problems
  - Less focused on the process of the concepts
  - Like having bad form/technique when working out
- Motivation tied to results, either good or bad
  - When you don't get the results you want, it is harder to keep going, or see any benefit in what you have accomplished
- Harder to form habits, because actions start or end based on the results
- Easier to fall victim to procrastination

Process vs. Product

- "Learning How to Learn: Powerful mental tools to help you master tough subjects" – Dr. Barbara Oakley and Dr. Terrance Sejnowski

- Used as an online textbook for ENGR 1100.05

- Focused on tasks, time devoted to subjects, etc.
  - Rewards based on finishing processes, not the result of the process
  - Example: After you study for 25 minutes, take a small break and reward yourself. This is known as the Pomodoro Technique.

- Motivation tied to completing tasks, studying for periods of time
  - Your brain is wired for rewards. If you are consistently feeling rewarded or accomplished for completing your processes, you won't get too up or down based on the results

- Easier to keep habits regardless of outcomes

Why is it so difficult to focus on the process?

- Results-based society
  - Grades in school
  - Performance-based jobs
- Difficult to measure effort
- Natural to need some positive results to keep going
- Need to find the right process
- Tremendous amount of faith in your process

Developing a Good Academic Process

- Think of things that have worked well in the past
- Be realistic about how much can be done each day, each week
- Try to do something for each class every day or every other day
  - Get better every day or get worse
  - Be kind to "Future Me"
- Rewards for completing processes
  - Pomodoro Technique
- Continue to evaluate the process
  - Increase/decrease length of time
  - Where to focus time, energy

Micro Goals vs. Macro Goals

- Micro
  - Short term
  - Demand is minor
  - Easily achievable
  - Prevents students from becoming overwhelmed
  - Trains brain to habitually set and reach goals
  - Many micro goals go into reaching a macro goal
  - S.M.A.R.T.

- Macro
  - Long term
  - Sometimes several years away
  - Many steps (micro) needed to accomplish
  - Helps students consider the entire process and things they will need to do in order to achieve Macro goal
  - Provides motivation to adopt a growth mindset
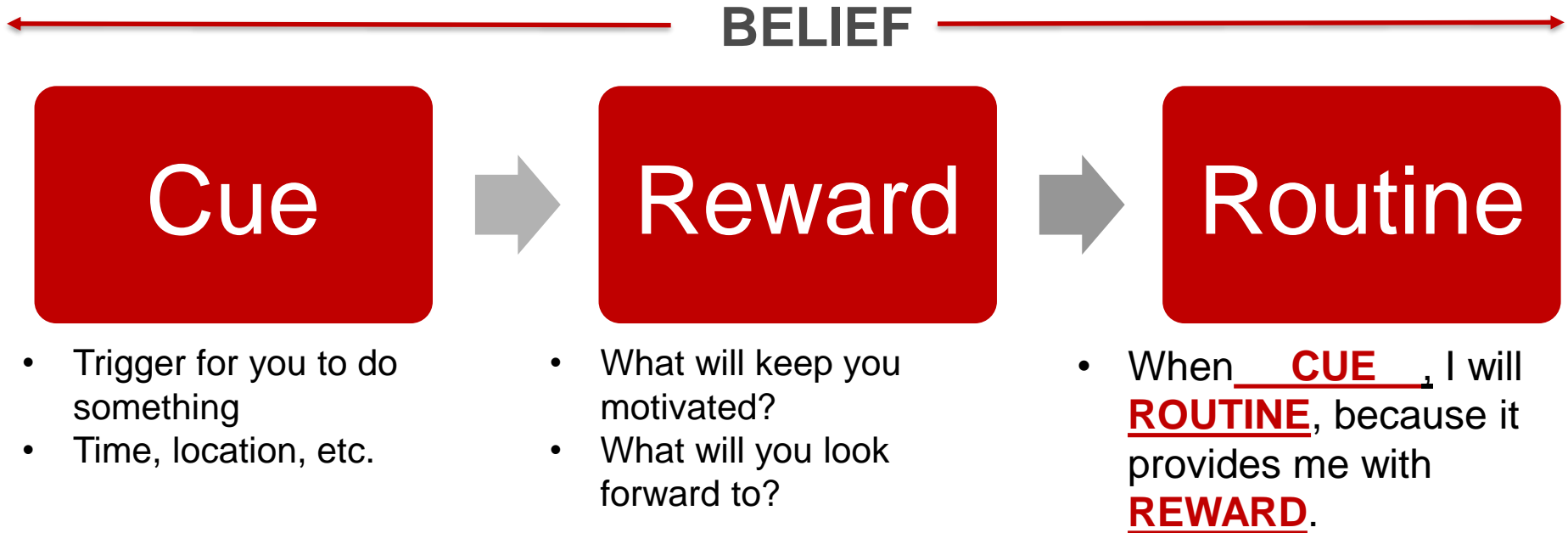 - S.M.A.R.T.

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Apply Micro goals to Exploration students

- Intentional about General Education and picking classes

  ❑ Adopting a growth mind-set

- Shortening Majors into milestones

  ❑ Introduction courses, major pre-requisite courses, informational sessions

- Early involvement on campus

  ❑ Student organizations, informational interviews, office hours, tutoring, job shadowing, study abroad, STEP, etc.

- Focus the direction of major exploration on passions and interests

  ❑ Helping student recognize that major rarely equals career

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How to Develop (or Change) a Habit

BELIEF

Cue	➡	Reward	➡	Routine

- Trigger for you to do something
- Time, location, etc.

- What will keep you motivated?
- What will you look forward to?

- When **CUE**, I will **ROUTINE**, because it provides me with **REWARD**.

DuHigg, Charles. (2012) "How to Change Habit." Retrieved November 6th, 2017 from: http://charlesduhigg.com/wp-content/uploads/2012/04/How-to-Change-a-Habit.jpg

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GRIT – Angela Duckworth

What is grit?

- Grit is passion and perseverance for **long-term** goals

- Something you care so much about that it helps organize and give meaning to what you are doing
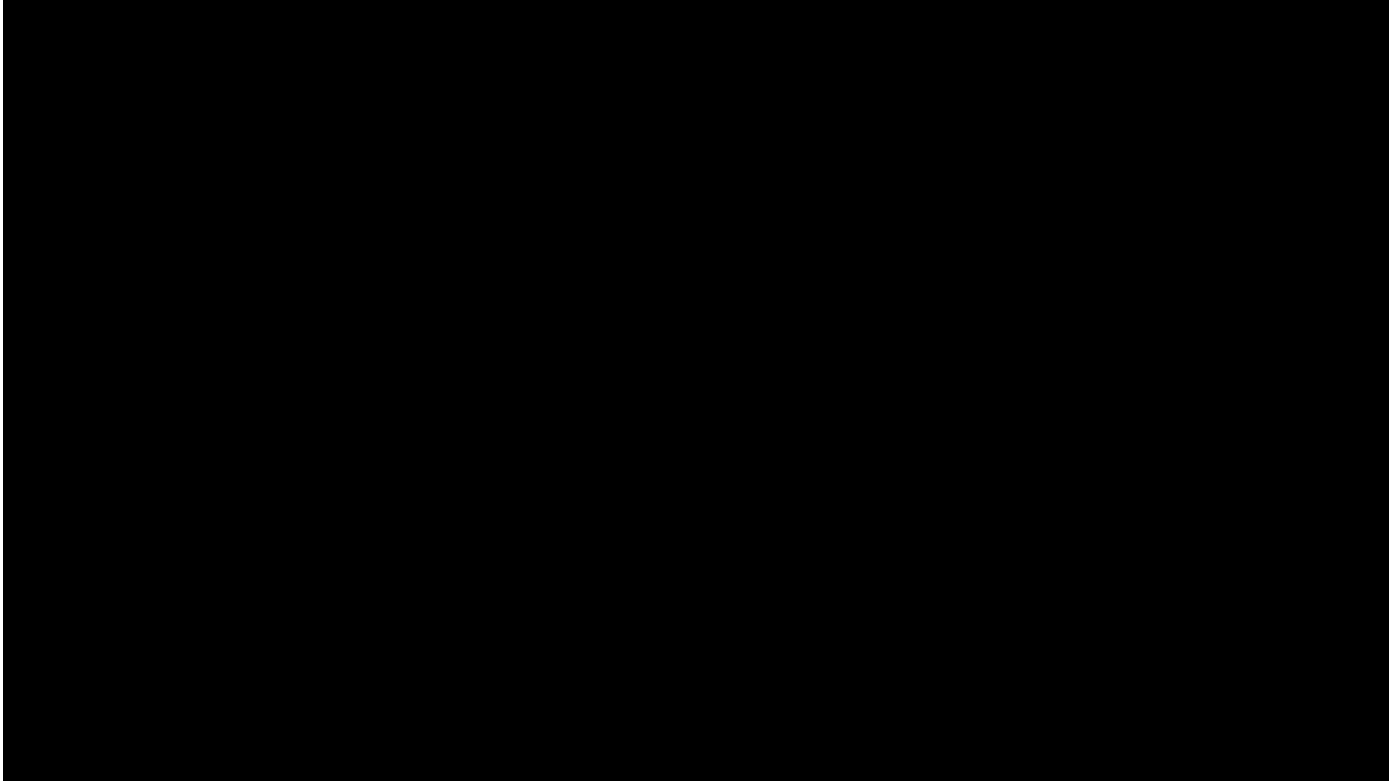
Who has grit?

- Everyone has some form of grit. It varies person to person, you can have more in some areas than others
- Like most things, grit can be developed

How can it help you?

- Grit predicts achievement in challenging and personally meaningful contexts
- More than talent or innate ability, grit is a more accurate predictor of success
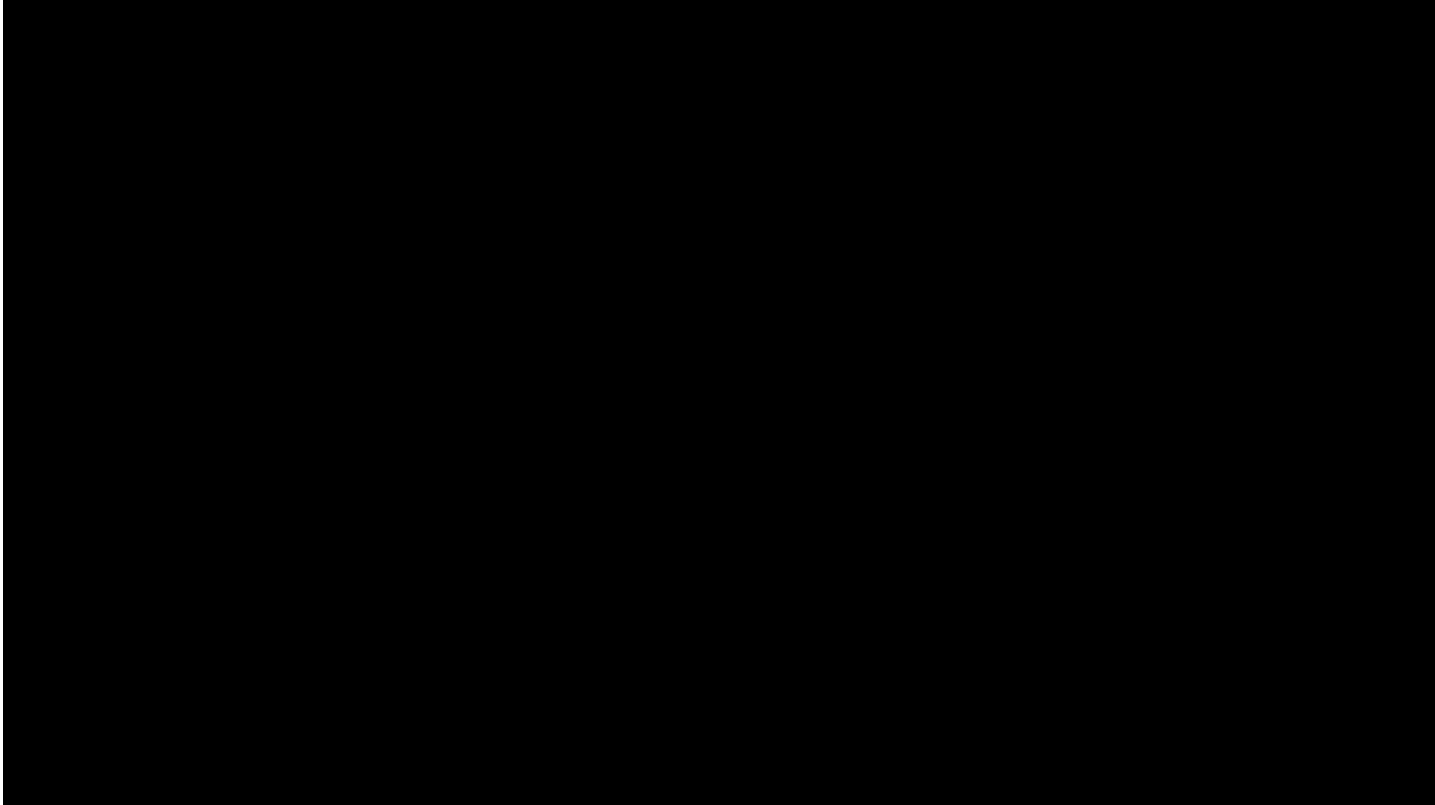
The importance of "grit"

GRIT

To be gritty is to keep putting one foot in front of the other. To be gritty is to hold fast to an interesting and purposeful goal. To be gritty is to invest, day after week, after year, in challenging practice. To be gritty is to fall down seven times, and rise eight. – Angela Duckworth

Everyone needs grit.

S.M.A.R.T. Process Goals

- <u>S</u>pecific
  - Saying "I need to work harder" is not specific

- <u>M</u>easurable
  - How often, how much time, etc.?

- <u>A</u>chievable
  - Is it realistic that you can study for eight hours every day?

- <u>R</u>elevant
  - Will this be worth your time?

- <u>T</u>ime-bound
  - When will you do it, what can you do today, tomorrow, etc.?

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Key Questions for students to ask themselves:

- How realistic is this goal?
- Am I being fair to "future me?"
- How is this going to benefit me?
- What resources do I have to help me achieve this goal?

Applications:

- University Survey Courses (ENGR 1100, EXP 1100)
- Major Exploration
- Academic Difficulty
- Time Management
- Others?

Tying it all together

- Many students come to us in a fixed mindset. We have to look for ways to help them develop a growth mindset

- Having a Process mindset and achieving Micro Goals can help them feel more rewarded over time, and lead to long-term results

- This also helps them develop grit, which can help students overcome obstacle and achieve their goals

Time to Act: Create an Action Plan

- Think of at least one concept from our presentation that could be applied to your work with students:

  - Growth vs. Fixed Mindset
  - Process vs. Product
  - GRIT

  - Micro vs. Macro Goals
  - How to Develop a Habit

Questions to consider:

- How is this going to benefit your students?

- During what interactions will you be able to discuss it?

- What tools/resources do you have to implement this concept?

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