

# **Just Do It (Later?): A functional behavioral approach to academic procrastination**



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# Procrastination and Purdue Global

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**“The only difference between success and failure is the ability to take action.”**

**-Alexander Graham Bell**



Source: Pixabay

(Leadem, 2017)

# Procrastination Defined

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Procrastination is best described as the putting off of a task that was previously scheduled, in spite of the knowledge that one will be in a less advantageous position because of the delay (van Eerde, 2003).

Academic procrastination is our topic today. It is specific to academic tasks, such as those found in our PG classrooms.

Roughly 70% of North American students procrastinate, but there are strategies that educators can utilize to reduce this number (Schouwenburg, Lay, Pychyl, & Ferrari, 2004).

Research tells us that students who are afraid of failure (perfectionists) or lack academic self-efficacy, are more likely to procrastinate. Students who find school interesting and who are focused on education's intrinsic worth are less likely to delay task completion (Senecal, Koestner, & Vallerand, 1995).

# Purdue Global Students

## Our Students



Over the age of 30:

**62%**



Had neither parent  
attend college:

**52%**



Female:

**66%**



Have a child or  
other dependent:

**63%**



Military-  
affiliated:

**30%**

# Purdue Global Students

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Online learners

Non-traditional students

The National Center for Education Statistics (n.d.) defines nontraditional students as meeting one of these:

- Delayed enrollment into postsecondary education
- Attends college part-time
- Works full time
- Is financially independent for financial aid purposes
- Has dependents other than a spouse
- Is a single parent
- Has not completed high school (has a GED)

Adult - balancing responsibilities

# Online Learners

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**Online learners are prone to procrastination.**

**Students who find school interesting and who are focused on education's inherent worth are less likely to delay task completion.**

**Intrinsic motivation (invested in education for the student's own reasons) is negatively correlated with procrastination.**

**Forming a learning habit is necessary to increase self regulation in learning. This prevents procrastination.**

**(Goda, Yamada, Kato, Matsuda, Saito, & Miyagawa, 2015).**

# Non-Traditional Students

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**Non-traditional students are more likely to procrastinate due to a lack of confidence or low academic self efficacy (previous learning experience results in a learned avoidance behavior)**

**(Batool, Khursheed, & Jahangir, 2017)**

**Perfectionism and fear of failure are a cause of procrastination in non-traditional students**

**Students who feel as though their work is not good enough or fear that they will fail avoid doing school work because attempting it causes so much negative emotion**

**(Stuart, 2013).**

# Adult Learners

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**Students who are older are often balancing responsibilities at home, at work and in school**

**More task responsibilities are linked with procrastination**

**Adult learners report guilt about time spent on school and put off academic tasks in favor of other chores/tasks**

**(Rosário, et al., 2009)**



# Procrastination Discussion

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What do you see in your classrooms?

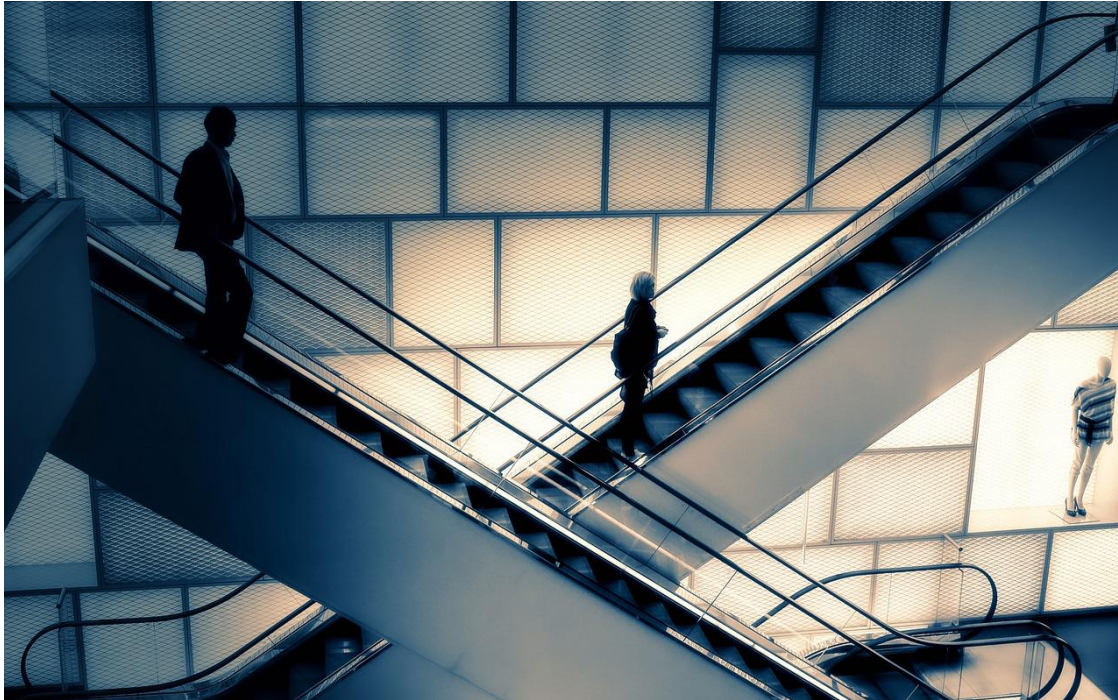


Source: Pixabay

# Procrastination Discussion

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Do you walk up an escalator? Or ride up without walking?



Source: Pixabay

# Procrastination is a Verb!

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We have a tendency to focus on the traits of procrastinators, or on how they think. It is important to keep in mind that procrastination is an action - the act of delaying a task.

One study demonstrates the idea of procrastination using the the Irrational Procrastination Scale (Svartdal, Granmo, & Færevaaag, 2018).

Back to the escalator question....

We can see that walking is a behavior.

Not walking is also an action.

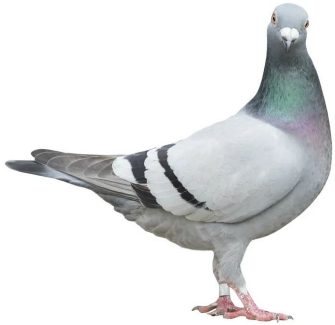
## Personality trait vs. Learned Behavior

- **Motivational Theories**
  - Matching Law
  - Schedules of Reinforcement
- **Delayed Gratification**
  - Strategies to address Procrastination
  - Identify the aversive stimulus
  - Increase reinforcement opportunities

# Behavior Chain

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**[Setting Event] → Antecedent → Behavior → Consequence**



**A → B → C**

## Would you rather...

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- Fold laundry **OR** watch football
- Do your taxes **OR** surf the web
- Call your doctor for a physical **OR** call your friend to vent about work
- Eat spinach **OR** eat ice cream

# Matching Law

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- **Relationship between the rate of response and rate of reinforcement**
  - Animals and humans emit behaviors in a ratio which matches ratio of reinforcement (Herrnstein, 1961)
- **Mathematical equation of Thorndike's *Law of Effect***
  - Responses with a “satisfying” effect are more likely to occur again
- **Do we have a choice?**
  - Two response options: **Option A or Option B**
  - For **Option A**: two times the rate of reinforcement as compared to **Option B**, therefore this means there will be two times the rate of responding for **Option A**

# Matching Law

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- **If we have a choice, what is our selection?**
  - Deposit money or play the lottery
  - Complete homework or watch television
- **Immediate or delayed gratification? (reinforcement)**
- **What is worth the effort?**
  - Shooting 2 points in basketball vs. 3 points



# Schedules of Reinforcement

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- **Ratio Schedule: Reinforcement based on the number of responses**
  - Example: Reinforce a dog with a treat every time he sits after a vocal cue.
- **Interval Schedule: A certain amount of time must elapse before a certain behavior results in reinforcement**
  - **NOT** contingent on number of behaviors
  - Example: Baking cookies
    - Set a timer after putting cookies in the oven.
    - You do not walk back to the oven until after a certain amount of time has passed.
    - It does not matter how many times you walk back and forth from the oven, reinforcement of a fully baked cookie is based on time

# Delayed Gratification

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- **Motivation (Intrinsic Motivation)**
  - Establishing operation
    - Is there an internal need to complete a task?
      - “What’s your *why*?”
  - *Marshmallow experiment (Mischel, 1972)*
    - 4-5 year olds presented with one marshmallow
    - If s/he did not eat the marshmallow while researcher stepped away for 10 min, child would receive 2 marshmallows



Source:

[https://www.theepochtimes.com/kids-do-better-on-the-marshmallow-test-when-they-cooperate\\_3252472.html](https://www.theepochtimes.com/kids-do-better-on-the-marshmallow-test-when-they-cooperate_3252472.html)

# Negative Reinforcement

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Negative reinforcement is NOT

- Punishment
- “Bad” reinforcement

	Behavior Increases	Behavior Decreases
Stimuli Added	Positive Reinforcement	Positive Punishment
Stimulus Removed	Negative Reinforcement	Negative Punishment

- **Examples**
  - Wearing sunscreen to avoid sunburn
  - Leaving the house early avoid getting stuck in traffic/ late for work
  - Turning cold water warmer in a bath
  - Child will not eat vegetables- parents remove plate with broccoli

# Negative Reinforcement

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- Can we wait to receive reinforcement?
- Or is the temporary relief fueling our behavior
- Procrastination is a learned behavior
  - It allows us to postpone or escape from work
  - Escape provides us with relief (temporarily)
  - Temporary relief is reinforcing enough to make us want to procrastinate again
  - Delaying task completion becomes more rewarding in the moment because of that relief

# Strategies to Address Procrastination

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## Importance of a reinforcing professor!

- **Seminar**
  - Using beginning of seminar as a time you “pair” yourself with your students
  - Housekeeping slides: visual schedule of what is coming up
- **Feedback**
  - Include personal and specific praise in Rubrics and Comments
- **Communication**
  - Checking in with your students in middle and end of course to reinforce (interval schedule)
  - Student who is falling behind: communicating via email/ phone/ google meet
  - “Priority” list and praise after each task completed

# Strategies to Address Procrastination (continued)

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- **Identify the Aversive stimulus**
  - Explore aversive stimuli in students' life
    - “What’s holding you back from starting this paper?”
    - “I noticed you did not post on the discussion board in Week 3, can you tell me why?”
  - Variables in our everyday life
    - Co-Vid19, wildfires, hurricanes, etc.
    - Personal variables (home life)
    - Perfectionism, fear of failure
      - **Microlearning**
        - Provide scaffolding of learning material (providing extra resources/video in announcements and discussion board)
        - Restructuring how Assignment explanations are presented
        - Recording a video explaining directions
        - Setting up a template

## Strategies to Address Procrastination (continued)

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- **Increase Reinforcement opportunities**
  - First/Then (Premack principle aka Grandma's law)
    - encourage your students to tackle one task at a time, and try to choose a special activity they can complete after coursework is done!

# PG Resources

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- **Avoidance due to academic self-efficacy**
  - PG Writing Tutor
  - Peer Mentor
- [Learning for Success Resource](#)
  - Tour for more “on task” resources

How would Tutors or Mentors help reduce frequency of avoidance behaviors?

How can we address what you said you are seeing at the beginning of this presentation?



# Discussion

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**How can you apply this ABA information to your goals for educating the future?**

**Can you apply any of these strategies to your classroom? Other ideas?**

# References

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- Batool, S. S., Khursheed, S., & Jahangir, H. (2017). Academic procrastination as a product of low self-esteem: A mediational role of academic self-efficacy. *Pakistan Journal of Psychological Research*, 32(1), 195.
- Cooper, J. O., Heron, T. E., & Heward, W. L. (2020). *Applied behavior analysis*. Hoboken, NJ: Pearson Education.
- Definitions and Data: Who Is Nontraditional? (n.d.). Retrieved September 15, 2020, from <https://nces.ed.gov/pubs/web/97578e.asp>
- Ferster, C. B. (1973). A functional analysis of depression. *American Psychologist*, 28(10), 857-870. doi:10.1037/h0035605
- Goda, Y., Yamada, M., Kato, H., Matsuda, T., Saito, Y., & Miyagawa, H. (2015). Procrastination and other learning behavioral types in e-learning and their relationship with learning outcomes. *Learning and Individual Differences*, 37, 72-80.
- Herrnstein, R. J. (1961). Relative And Absolute Strength Of Response As A Function Of Frequency Of Reinforcement, 2. *Journal of the Experimental Analysis of Behavior*, 4(3), 267-272. doi:10.1901/jeab.1961.4-267
- Leadem, R. (2017, March 10). 12 Inspiring Quotes From the Inventor of the Telephone, Alexander Graham Bell. Retrieved September 15, 2020, from <https://www.entrepreneur.com/article/290418>
- Mazur, J. E. (1996). Procrastination By Pigeons: Preference For Larger, More Delayed Work Requirements. *Journal of the Experimental Analysis of Behavior*, 65(1), 159-171. doi:10.1901/jeab.1996.65-159.
- Mischel, W., Ebbesen, E. B., & Raskoff Zeiss, A. (1972). Cognitive and attentional mechanisms in delay of gratification. *Journal of Personality and Social Psychology*, 21(2), 204–218. <https://doi.org/10.1037/h0032198>
- Purdue Global Fast Facts. (n.d.). Retrieved September 15, 2020, from <https://www.purdueglobal.edu/about/fast-facts/>

# References

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- Rosário, P., Costa, M., Núñez Pérez, J. C., González-Pianda, J. A., Solano Pizarro, P., & Valle, A. (2009). Academic procrastination: Associations with personal, school, and family variables.
- Schouwenburg, H.C., Lay, C., Pychyl, T.A., & Ferrari, J.R. (2004). *Counseling the procrastinator in academic settings*. Washington, D.C.: American Psychological Association.
- Senecal, C., Koestner, R., & Vallerand, R. J. (1995). Self-regulation and academic procrastination. *The journal of social psychology, 135*(5), 607-619.
- Stuart, B. M. (2013). *The relation of fear of failure, procrastination, and self-efficacy to academic success in college for first and non first-generation students in a private non-selective institution*
- Svartdal, F., Granmo, S., & Færevag, F. S. (2018). On the Behavioral Side of Procrastination: Exploring Behavioral Delay in Real-Life Settings. *Frontiers in psychology, 9*, 746.
- Van Eerde, W. (2003). A meta-analytically derived nomological network of procrastination, *Personality and Individual Differences, 35*, 1401-1418.