

# “KNOWING WHEN TO HIT THE OFF SWITCH”

INTEGRATING PRIORITIZING AND TECHNOLOGY IN AN EFFORT TO  
MANAGE ANXIETY AMONG COLLEGE STUDENTS

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Prodigy program - The University of Arizona

# Introduction



- **Alex Chambers**
  - PhD student in Special Education.
  - Current graduate assistant for Prodigy.
    - Prodigy is a free, goal-driven program open to any incoming UA freshman.
  - Research assistant for SALT center for learning disabilities.
    - Research topics – self determination and motivation in students with learning disabilities.
  - Avid fan of women's basketball (WNBA & NCAA)
    - 13 Teams: One Man's Journey with the WNBA – available via amazon.com (shameless promotion)

# Objectives:



- Anxiety as it relates to freshman and their first year college experience.
- Media Multi-Tasking myths and realities.
- Identification of productive and counterproductive cycles of task completion.
- Single task strategy/technology perspective.
- Integration of technology experiences.

# Question #1

Is there a connection  
between anxiety and  
technology?

# Anxiety

- Not necessarily a bad thing – only when it begins to have negative impact on one’s life.
- A feeling of worry, nervousness, or unease, typically about an imminent event or something with an uncertain outcome. (Dictionary definition)
- An emotional state where people feel uneasy, apprehensive or fearful. (Ronald J. Kulich, Ph.D.)
- #1 Fear of college students – “Will I succeed?”  
Alexander Astin, *“What Matters in College?”*

# Anxiety

- A feeling of **worry**, **nervousness**, or **unease**, typically about an imminent event or something with an **uncertain outcome**. (Dictionary definition)
- An **emotional state** where people feel **uneasy**, apprehensive or **fearful**. (Ronald J. Kulich, Ph.D.)
- Alexander Astin, “*What Matters in College?*”  
#1 Fear of college students – “**Will I succeed?**”

# Anxiety – When it impacts education.

- **ADAA** (Anxiety Disorders Association of America)
  - **Increase** in college students seeking treatment for anxiety disorders.
- **NIMH** (National Institute of Mental Health)
  - **75%** of all individuals with an anxiety disorder will experience symptoms before age **22.**
- **Contributors?**
  - Managing of “firsts”, lack of ability to cope w/ new experiences. (Transition)
  - Competition (class registration, scholarships, etc)
  - Often won't seek help – confirmation of fear.
  - #1 Fear of college students – **“Will I succeed?”**

# Technology

- Advances faster each year.
- Changing the experience of incoming Freshman, gap is closing.
- Most college Freshman – second nature.
- 2007 (University of Colorado Survey) 12% of college students owned smart phones (iPhone, Droid, etc) Current number is 53% - as of 2010.



# In the Palm of our hand...

- **Smartphones:**
  - Text message
  - Email access
  - Check weather
  - Maps and directions
  - Internet access
  - Instant message
  - Social media
  - ...and make phone calls



# iPad & Tablets & Solid State Technology



# There's an app for that

- Average daily app download – 5.4 million worldwide.
- Christmas Day 2011 – 242 million



*mrry chrstms & hppy nw yr !  
bll, pm, sm & jck*

# The connection? **Media Multi Tasking**



- **Media Multi-Tasking**
- **Multi-tasking:**
  - 1) To schedule and execute multiple tasks simultaneously.
  - 2) To handle more than one process at once.

# The Evolution of Media Multi-Tasking

- Advances in technology allow students to put more on their plate.
  - On line classes - no need to be in class, increase in credit hours to schedule.
  - Campus wide WiFi (study anywhere; the classroom follows you.)
  - Laptops vs. tablets – Just bring it with you.

# Research on Media Multi-tasking

## ➤ **Henry J. Kaiser Family Foundation (2006)**

- Results indicate that there may be an upper limit to the amount of brain tissue that can be activated at any one time.
- Research ultimately suggests that brain capacity is finite and attention to one task diminishes as another is introduced.

## ➤ **Russel Poldrack-UCLA (2006)**

- Multi-tasking adversely affects how you learn.
- When distractions force you to pay less attention to what you are doing, you don't learn as well as if you had paid full attention.

# Research on Media Multi-tasking

- **Stanford University (2009)**
  - Heavy media multi-taskers are **distracted** by the multiple streams of media they are consuming.
- **Dr. Patricia Greenfield, Director of the Children's Digital Media Center at UCLA (2010)**
  - Possible **negative impact** on both **cognitive** skills, and **social** and **emotional** skills.
- **Boston College (2010)**
  - Multi tasking = **distraction**: Looked between a TV and computer. Subjects indicated they believed they were looking between 12 and 15 times total: (in a 27 minute period)
    - **They were actually looking a staggering 120 times in 27.5 minutes -- or approximately once every 14 seconds.**

# Too much face and not enough books:

- October 2011 Study on Facebook and academic performance, by Reynol Junco.
- Department of Academic Development and Counseling, Lock Haven University, PA
- **Facebook activities: (only 5 out of 14)**
  1. Playing games (FarmVille, MafiaWars, etc.).
  2. Posting status updates.
  3. Sharing links.
  4. Sending private messages.
  5. Commenting (on statuses, wall posts, pictures, etc.).



# Too much face and not enough books:

- Furthermore, while the relationship between time spent on Facebook and grades is negative, the real-world impact of said relationship **\*\*does not seem to be a major detriment to academic success.**
- **\*\***In other words, there may be **other variables** that are more strongly related to overall GPA and time spent preparing for class that should be the **focus of examination and intervention,** instead of student use of Facebook.

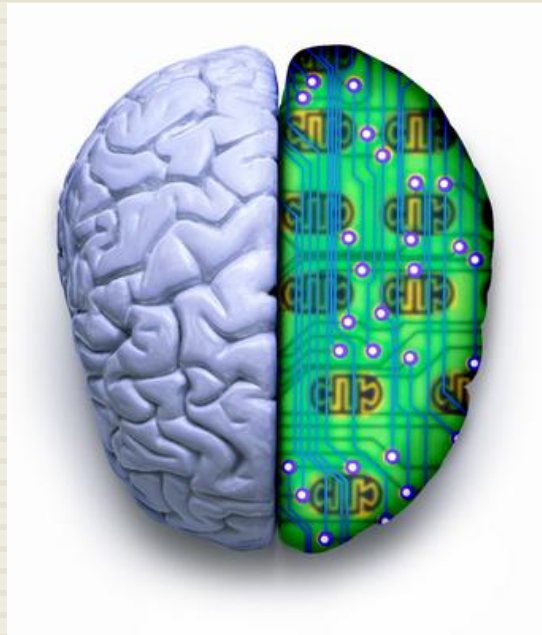
# Multi-Tasking: Verdict?



- Multi-tasking is not conducive to learning
- Why? In order to multitask:
  - the brain instinctively looks for more to focus on thus becoming become distracted
  - Additional tasks deplete brain energy, reducing its ability to function
- Not bad when tasks are not important.
- Should be avoided when tasks increase in importance. (i.e. studying & learning)

# The Evolution of Multi-Tasking (Media)

- Media Multi-tasking:
  - 1) To schedule and execute multiple tasks simultaneously.
  - 2) To handle more than one process at once.



# Daniel Pink: The Science of Motivation.

**There's a **mismatch**  
between what  
science knows and  
what business does.**

My adaptation:

There's a **mismatch**  
between what  
science knows and  
~~what business does.~~  
First year students do.

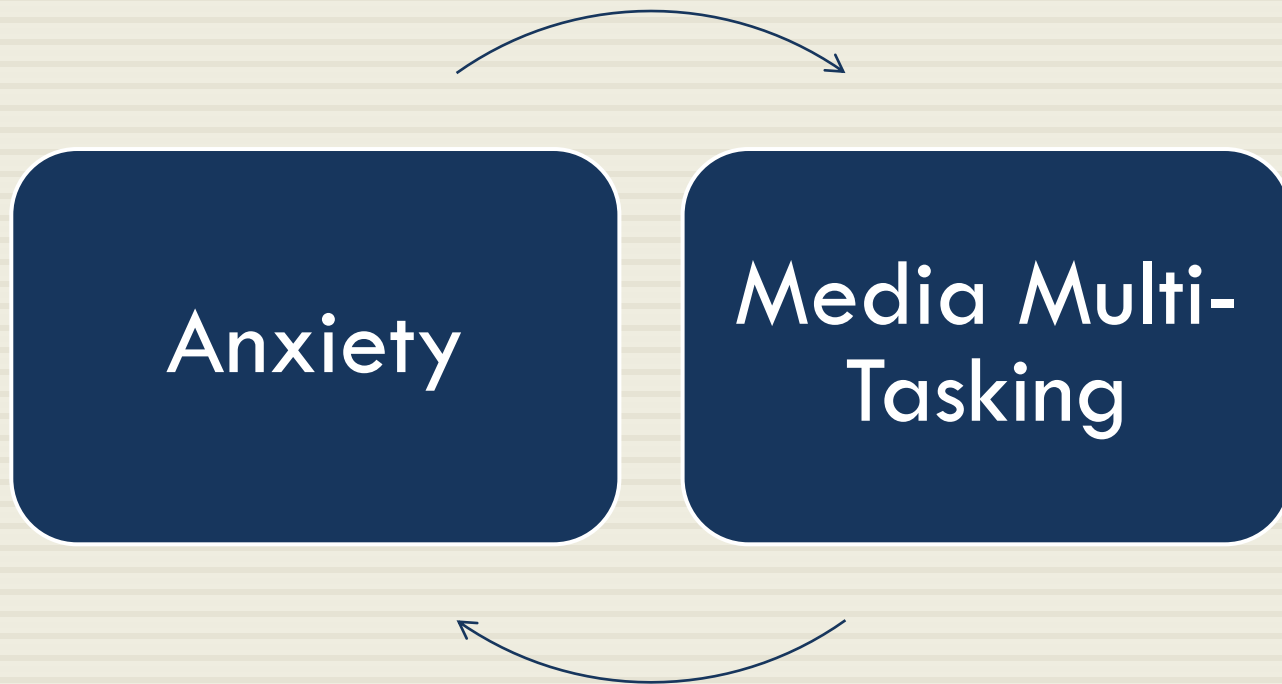
# Hypothesis:

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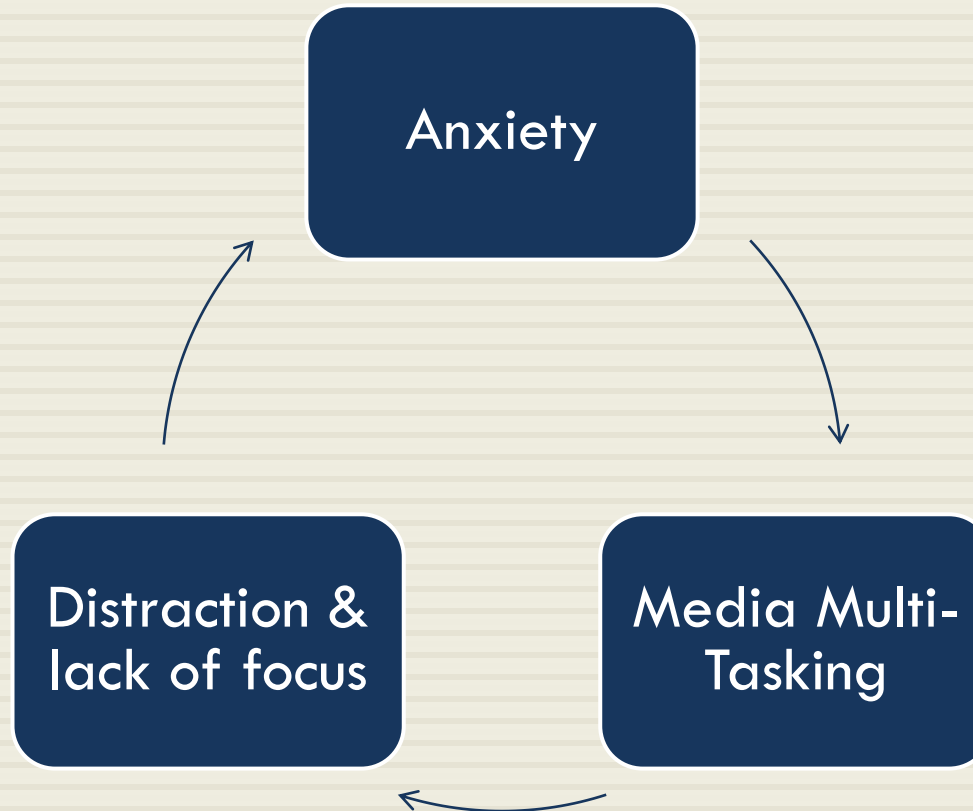
Anxiety

# Hypothesis:

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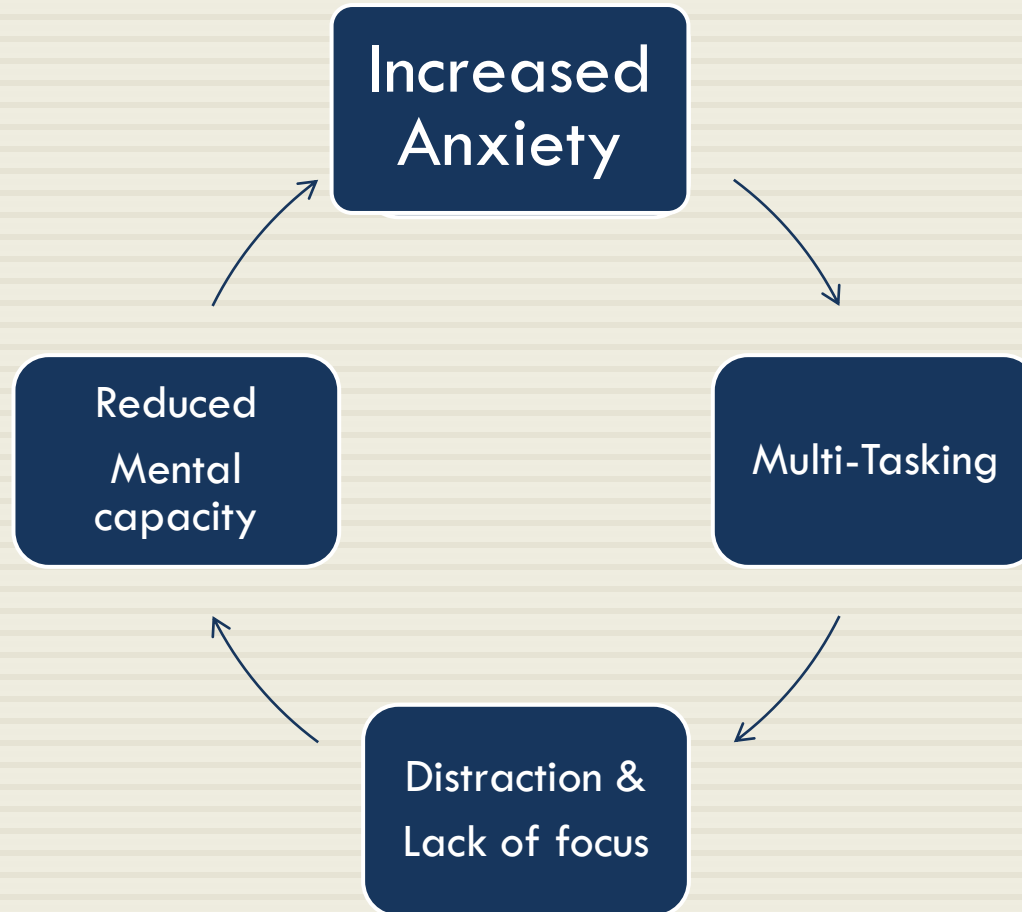


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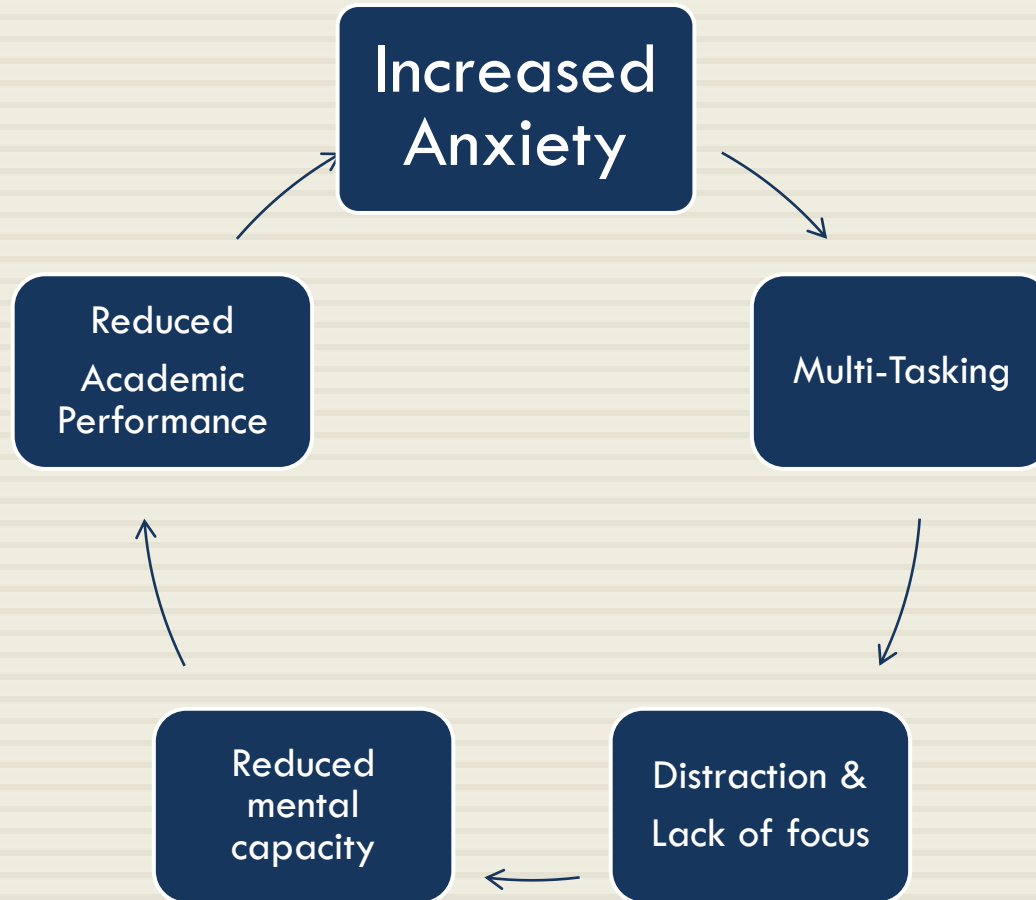




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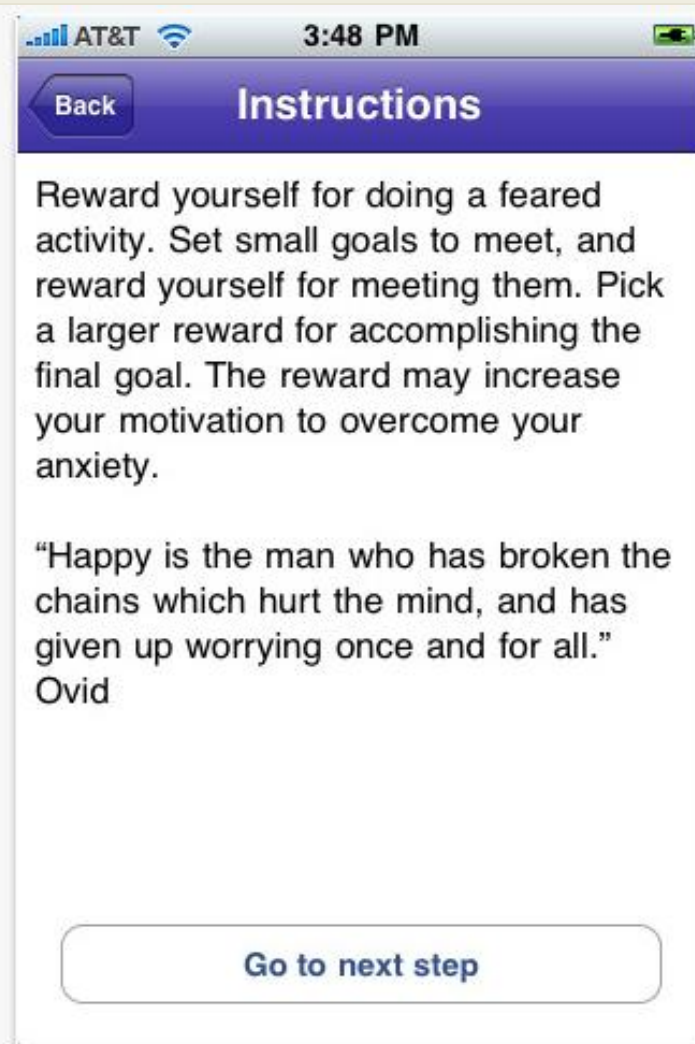


# Question #2



How can we reduce student dependency on media multi-tasking while allowing them to use technology in productive ways?

# Turn to technology?



# “Re-introduction”

- Model technology use – “extension of self”
- Introduce goal strategies that lead to:
  - ▣ Single task completion
  - ▣ Mastery orientation (intrinsic motivation)
- Individual strategies

# Model of technology use (cont)

- Model of technology use: as an *extension* of self, not a *replacement*.
- Technology for many college students in second nature.
- Fight against it = unsuccessful.
- Use it better/Use it smarter.

# Model of technology use (cont)

- **How?** Do not allow technology to keep you from being “present.”
  - **1. Increase awareness:** Multi-tasking leads to distraction.
    - Presented into workshops, implemented in semester strategy plans one on one students.
    - Implement in existing topics (study skills, learning strategies, etc)
    - Goal is not to eliminate, but to prioritize tasks.

# Model of technology use (cont)

- 2. Utilize existing technology to keep students engaged.
- **Example:** Purdue University (2011) - Hotseat, Mixable, Double Take.
  - ▣ **Hotseat** – questions & discussion app.
  - ▣ **Mixable** – discussion outside of class.
  - ▣ **Double Take** – take videos with built in feedback.



# Model of technology use (cont)

- *Keep in mind: (Providing collected information vs. Individual plan & attention)*
- Knowledge of technology, just like students, come in different forms and levels of understanding.
- Treat students as individuals when it comes to technology.
  - Do not assume all students have the same level of knowledge/skill/access.
  - Get to know what your students have and use, build from there.

# Steps to “Mental Toughness.”

- Created by Dr. Potterat: Commander and Psychologist for the US Navy Seals.
- 1. Short-term immediate goal setting:
- 2. Mental rehearsal
- 3. Self-talk
- 4. Arousal-control
  - Slow, deep breathing helps. Try 6-2-6-2. Breathe in for 6 counts, hold it for 2, breathe out for 6 counts, hold for 2. Repeat 3X.

# Dr. Potterat's steps to “Mental Toughness.”

- **1. Short-term immediate goal setting (STG)**
  - Set immediate, easily achievable goals.  
When you reach the goal, set the next one.
- **2. Mental rehearsal (MRE)**
  - Clearly envision a successful performance.  
See the stressor, and respond as you want to.

# Dr. Potterat's steps to “Mental Toughness.”

## ➤ 3. **Self-talk**

- Who consoles you and puts you in a good place?
- Ask yourself: what would that person say to you right now?

## ➤ 4. **Arousal(anxiety)-control**

- Arousal here is a physiological term that refers to a state of increased adrenalin which can lead to full 'fight or flight' response. A little arousal (anxiety) is good - it increases interest. Too much arousal can cause adrenaline overload.

# Mental toughness example:

## 5 page paper

- 1. STG – Outline in 30 minutes.
- 2 MRE – Focus on topic, ideas and content.
- 3 Self-talk (internal) what's first, what's next?
- 4 Arousal control - paper is due in three days, but I have time now.
  - **Goal completed – repeat!**

# One bite at a time



Shel Silverstein

# Integration



# Mastery orientation

- Mastery orientation is described as a student's wish to become proficient in a topic to the best of his or her ability. The student's sense of satisfaction with the work is not influenced by external performance indicators such as grades. Mastery orientation is associated with deeper engagement with the task and greater perseverance in the face of setbacks. Classrooms: Goals, structures, and student motivation.
- (*Ames, Carole - Journal of Educational Psychology, Vol 84(3), Sep 1992, 261-271.*)



# Mastery/performance

- **Mastery orientation** is described as a student's wish to become **proficient** in a topic to the best of his or her **ability**. The student's sense of **satisfaction** with the work is **not** influenced by **external performance indicators** such as grades. Mastery orientation is associated with deeper **engagement** with the task and greater perseverance in the face of setbacks. Mastery orientation is thought to **increase a student's intrinsic motivation**.
- (Ames, Carole - *Journal of Educational Psychology*, Vol 84(3), Sep 1992, 261-271.)

# Strategies: Keeping it Simple

“Simplicity is the ultimate sophistication.”

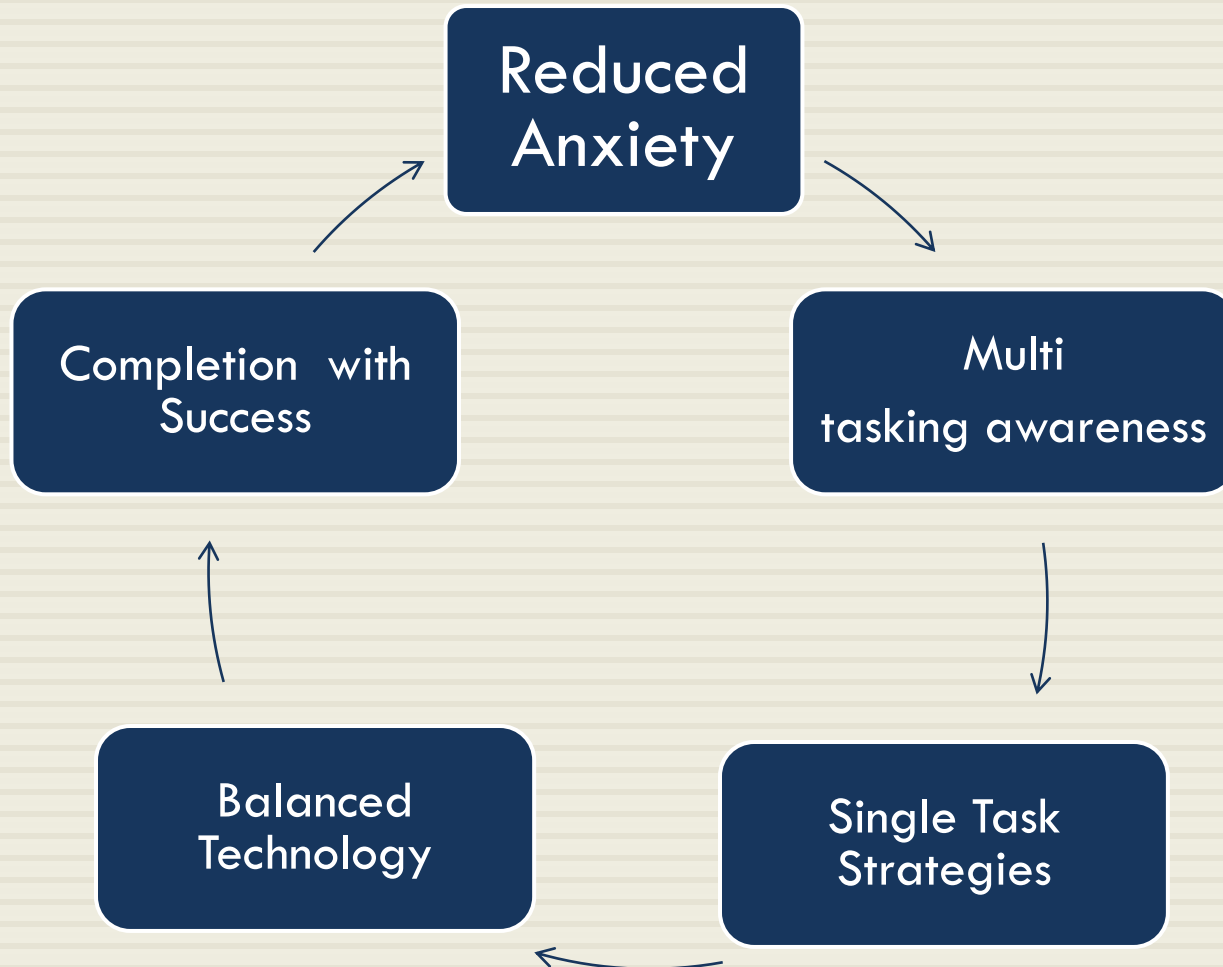
- **Leonardo da Vinci**

- **1. Re-think the philosophy** of what it takes to complete tasks.
  - **Mental strength** – empowering and building. Break down large tasks into small ones
  - **Study strategies** – What and why of media multi-tasking.
  - **Encourage inquiry** about existing technology.
    - Schedule example. (Task list or Photo)
    - Schedule example 2 (Test as events on facebook)

# Strategies: Keeping it Simple

- **2. Integrate different technology** (low tech vs. high tech)
  - White board example. (i.e. photo of pie chart)
  - Stopwatch example (i.e. student athlete – mental strength like a drill)
- **3. Reflection of priority**
  - On line classes (virtual doesn't mean less work)
  - Wi-Fi (accessibility vs. distraction)
  - Success with balance (Once is not enough)

# New Cycle:



# Strategies: Final thought

- Know your population and introduce accordingly.
- Increase awareness of the pitfalls of multi-tasking.
- Seek out comprehensive single-task strategies.
- Focus on technology as an “Extension of Self”.
- Anxiety exists, make it work for you.

□ Questions & Discussion

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