Before and After: Supporting Academic and Social-Emotional Regulation in Statistics and Writing

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Is This Your Classroom?
The Dysregulated Student

College and university counseling center presenting concerns

Percentage of students who presented with depression, anxiety or a relationship problem as their main reason for seeking help at a counseling center.
2013 Gallup Student Poll: one in three Participants Are “Success-Ready”

One in Three Students Surveyed Are Success-Ready

Thirty-three percent of Gallup Student Poll respondents in grades five through 12 are success-ready, scoring highly on measures of hope, engagement, and well-being.

Gallup Student Poll, Fall 2013

GALLUP
Gallup’s State Of America’s Schools Report 2013: The Teacher

Nearly Half of Teachers Experience a Lot of Daily Stress

Did you experience stress during a lot of the day yesterday?

PERCENTAGE RESPONDING “YES”

- K-12 Teachers: 46%
- Nurse: 46%
- Physician: 45%
- Sales: 45%
- Other professionals: 43%
- Manager or executive: 43%
- Service worker: 43%
- Business owner: 42%
- Clerical: 42%
- Construction: 38%
- Installation/Repair: 38%
- Manufacturing: 37%
- Transportation: 36%
- Farming, fishing, or forestry: 33%

Results from the 2013 Gallup-Healthways Well-Being Index survey

ENGAGED NOT ENGAGED ACTIVELY DISENGAGED

K-12 TEACHERS

- Engaged: 31%
- Not Engaged: 56%
- Actively Disengaged: 13%

TOTAL U.S. WORKFORCE

- Engaged: 30%
- Not Engaged: 52%
- Actively Disengaged: 18%
The Dysregulated Classroom: A True Story
Dysregulation in the Classroom

- difficulty decreasing negative emotions and exhibiting more extreme emotions
- being less able to calm themselves
- difficulty understanding emotional experiences
- becoming avoidant or aggressive when dealing with negative emotions
- difficulty identifying emotional cues
- difficulty recognizing their own emotions
- focusing on the negative
- difficulty controlling their attention
- being impulsive
- difficulty decreasing their negative emotions
- difficulty calming down when upset
Academic and Social-Emotional Regulation for 1st-Generation Students

First-Generation College Students:

- Lower grades
- Higher dropout rates
- Fewer close relationships with student peers and faculty

Why?
Academic and Social-Emotional Regulation for 1\textsuperscript{st}-Generation Students

Why are first-generation college students less likely to succeed academically?

Partly, due to “cultural mis-match” between college culture & students’ cultural backgrounds (Stephens, et al., 2012)
Academic and Social-Emotional Regulation for 1st-Generation Students

First-Generation Student Values – Inter-dependence:

Importance of adjusting & responding to others’ needs, preferences, interests; connecting with others; being part of a community

“LIFE DOESN’T MAKE ANY SENSE WITHOUT INTERDEPENDENCE. WE NEED EACH OTHER, AND THE SOONER WE LEARN THAT, THE BETTER FOR US ALL.”

ERIK ERIKSON

© Lifehack Quotes
Academic and Social-Emotional Regulation for 1st-Generation Students

The “cultural mis-match” experienced by first-generation college students leads to

- uncertainty about how to act as a college student
- doubt about whether they belong and can succeed in college

Everything you ever wanted, is on other side of fear.
Academic and Social-Emotional Regulation for 1st-Generation Students

“Cultural mis-match” examples (Stephens et al., 2012):

“Neither of my parents went to college, so they never told me what to do in college, because they didn’t really know how to interact with teachers, speak up in class, and develop my own opinions.”
Academic and Social-Emotional Regulation for 1st-Generation Students

“Cultural mis-match” examples (Stephens et al., 2012):

“My advisor wants me to be independent and to figure out what I want to do on my own, but I went to her for guidance and support.”
Stephens et al. (2012) concluded:

“...social class achievement gaps that are often thought to be due to intellectual abilities or academic skills, may actually be due...to norms of independence at American colleges and universities.”
Supporting Academic and Social-Emotional Regulation: The Case of Writing

Writing – an area of academic performance that often elicits anxiety in students

“Writing Hope” – a disposition or belief that can counteract anxiety by increasing self-efficacy about writing and promoting emotional regulation (Sieben, 2013)
Supporting Academic and Social-Emotional Regulation: The Case of Writing

Sieben (2013) - research results show:

• Writing hope predicts writing performance (when controlling for general academic achievement)

• Writing hope can be taught
Supporting Academic and Social-Emotional Regulation: The Case of Writing

“Writing Self-Regulation”

• Also predicts writing performance

• Defined as self-control of one’s thoughts, emotions, & actions used by writers to achieve writing goals
Supporting Academic and Social-Emotional Regulation: The Case of Writing

So, how can we help students enhance their writing hope and self-regulation?

Sieben (2013):

1. have students share personal goals for writing, and exchange feedback & encouragement with each other
Supporting Academic and Social-Emotional Regulation: The Case of Writing

So, how can we help students enhance their writing hope and self-regulation?

Sieben (2013):

2. have students keep a “writing journal” with reflections on their progress & experiences with writing
Supporting Academic and Social-Emotional Regulation: The Case of Writing

So, how can we help students enhance their writing hope and self-regulation?

Sieben (2013):

3. teacher creates secure, trusting classroom environment; provides frequent, constructive feedback & encouragement; shows interest in student writing – what it says about students, their thoughts, interests, & feelings
Supporting Academic and Social-Emotional Regulation: The Case of Writing

So, how can we help students enhance their writing hope and self-regulation?

Also, in our work at Governors State: applying mindfulness & contemplative techniques to enhance writing hope, efficacy, & self-regulation
Supporting Academic and Social-Emotional Regulation: The Case of Writing

Returning to issue of first-generation student success:

“Writing hope is a matter of social justice, as all college students [regardless of social class or background] must be taught in a way that will enable all groups in a culture to play an important role in conversations that influence theory, policy, and practice.” (Sieben, 2013)
Empirical evidence suggests that students in nonmathematical disciplines (e.g., social sciences) regard statistics courses as the most anxiety-inducing course in their degree programs. (Chew & Dillon, 2014)

Statistics anxiety, which is experienced by as many as 80% of graduate students, has been found to debilitate performance in statistics and research methodology courses. As such, it is likely that statistics anxiety is, in part, responsible for many students delaying enrollment in these courses for as long as possible. Moreover, it is possible that, once enrolled in these courses, students with high levels of statistics anxiety tend to procrastinate on assignments. (Onwuegbuzie, A.J., 2004)
The Stats Story: Anxiety & Achievement


- The present study investigated the relationship between statistics anxiety, individual characteristics (e.g., trait anxiety and learning strategies), and academic performance.
- The structural equation model showed that statistics anxiety held a crucial role as the strongest direct predictor of performance.
- Students with higher statistics anxiety achieved less in the examination and showed higher procrastination scores. Statistics anxiety was related indirectly to spending less effort and time on learning.
“The Cure”

- Journal writing led to improvement in their grades, lower anxiety before exams, and lower physiological reactions (Sgoutas-Emch, S.A. & Johnson, C.J., 1998)
- Instructor immediacy (Williams, 2010)
- Gender and Culture-Sensitive Courses: discussion of statistics anxiety and role of women and minorities in research (Davis, 2003)
- Peer modeling (Bartsch, 2012)
- Mindfulness???
Mindfulness and Education

The faculty of voluntarily bringing back a wandering attention, over and over again, is the very root of judgment, character, and will...An education which should improve this faculty would be the education par excellence. But it is easier to define this ideal than to give practical directions for bringing it about.”

William James (1890)
Mindfulness-Based Stress Reduction (MBSR): Jon Kabat-Zinn

- Mindfulness, the skill of learning to pay attention, without judgment, to one’s present-moment experience, offers a way to improve well-being in diverse populations.

- 8 Mindfulness meditation training sessions (includes yoga). MBSR has been shown to reduce stress and improve mood and academic performance in both college and graduate students.

- Although there has been work on developing programs specifically for children and teens, there has been little discussion about targeting mindfulness training specifically towards other critical developmental stages, such as emerging adulthood.
Mindfulness Programs for College Students

- **Koru Mindfulness Program**: 4-75 minute minute classes: Developed by psychiatrists Holly Roger & Margaret Maytan to bring the benefits of mindfulness to the college students they worked with at Duke University’s student counseling center.

- **Mindfulness-Based Coping with University Life (MBCUL)**: 8 week program specifically tailored to needs and demands of college students at the University of Northampton, UK by Siobhan Lynch and others.
Two Studies on Koru and MBCUL

- **Koru Study (Greeson et. al. 2015):**
  - Randomized Controlled Trial
  - Significant differences were observed among changes in perceived stress, sleep problems, mindfulness, and self-compassion between Koru group and waitlist group.

- **MBSUL Study (Lynch et. al 2011):**
  - A Non-randomized Wait-list-controlled Pilot Study.
  - Significant change was observed for the MBCUL group in terms of perceived stress, depression and personally relevant change, along with an increase in mindfulness.
Mindfulness Training (MT) Improves GRE Scores & Working Memory (Mrazek et al. 2013)

- Investigated MT in a randomized control design comparing a short-form MT course and a nutrition course (2 weeks, 6 h of in-class time) to undergraduate college students.
- The MT group showed significantly greater improvement in GRE scores, mind wandering working memory.
Meditation Improves Learning
(Ramsburg & Youmans 2013)

- Students from an introductory psychology course were offered a brief mindfulness meditation session or a period of rest followed by a course lecture.
- After the lecture, students took a quiz assessing learning and retention of the material.
- Students in the mindfulness group outperformed students in the rest group, suggesting that engaging in a brief mindfulness exercise may bolster learning.
Mindfulness Training Reduces Mind Wandering  
(Morrison et. al. 2014)

- Student cohort over the course of the academic semester (MT versus Waitlist).

- 7 weeks training program included two components: Instructor-led mindfulness based sessions and supervised practice sessions. Each week, participants attended a 20 min instructor-lead session.

- Results suggest that while short-form MT did not bolster working memory task performance, it did help curb mind wandering.
A Model for Mindfulness in Learning

2. *Emotional regulation* allows for an increase in concentration and working memory.
3. Mindfulness allows greater openness to *social support and connectedness* (especially if the instructor and entire class is participating).
4. Mindfulness facilitates greater engagement (fuller sensory involvement) and *resilience* with whatever is being studied.
5. Students great *hope* and apply themselves more.
6. Students perform better.
Our Project at GSU

- Two courses: Statistics and Writing Courses
- Three groups of each:
  1. Mindfulness infused course with online emotional reflections.
  2. Control group with online cognitive reflection course with same instruction.
  3. Control group with no online reflection with different instructor.
References


References

