Multiple Paths to Excellence

When to go up for promotion to full

- When your Department Chair recommends it
- When your unofficial mentors recommend it
- When you've been at Associate for 5+ years
- When you're ready to fight the patriarchy (or at least be paid the same as them)

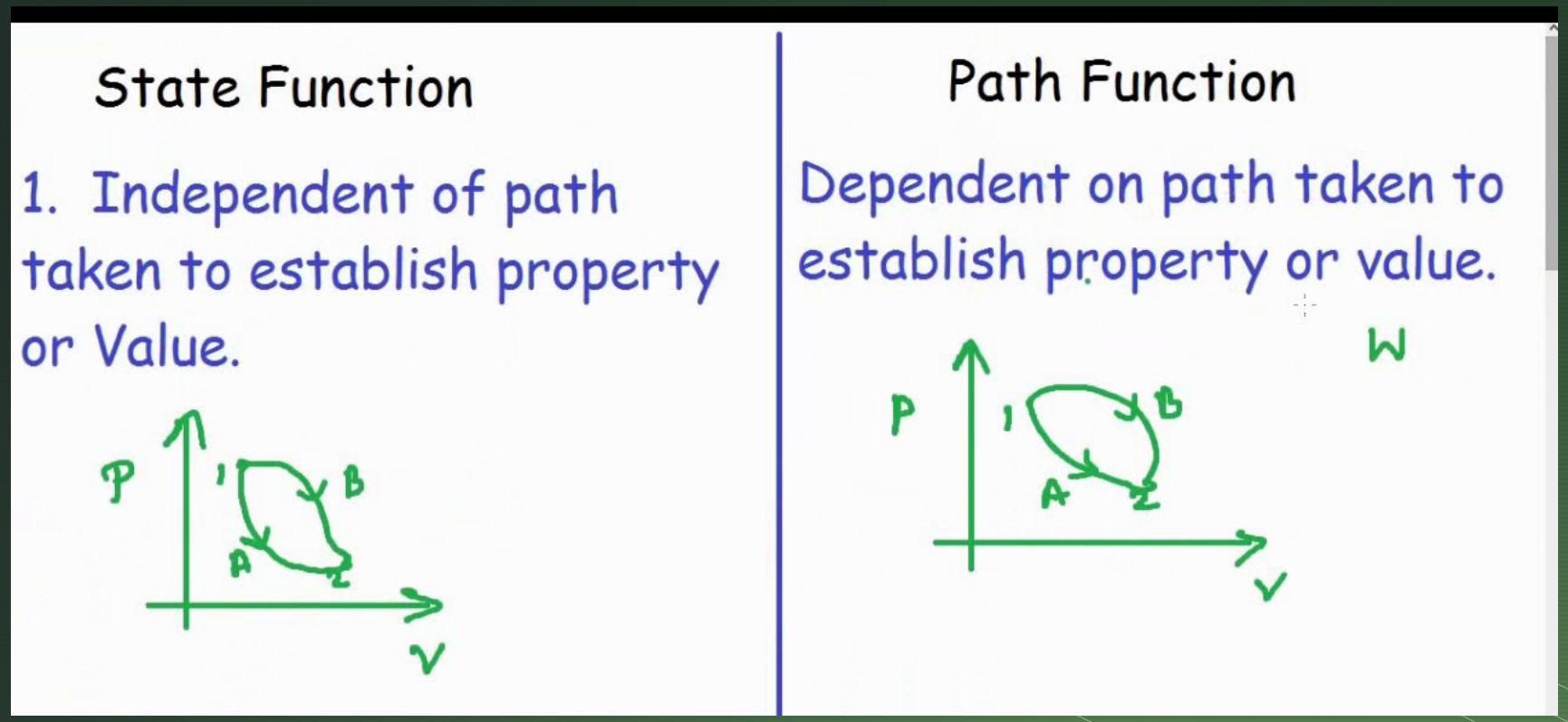
The Confidence Gap

This is why, I think, the Hewlett Packard report finding is so often quoted, so eagerly shared amongst women, and so helpful. For those women who have not been applying for jobs because they believe the stated qualifications must be met, the statistic is a wake-up call that not everyone is playing the game that way. When those women know others are giving it a shot even when they don't meet the job criteria, they feel free to do the same.

Original findings in an internal report at Hewlett Packard; interpretation by Harvard Business Review, 2014

You don’t look like your colleagues. Why should your path to promotion?

RESEARCH STATEMENT



RESEARCH STATEMENT

- Address the State Functions (expected component)
  - Funding
  - Publications
  - Scholarship
- Include the Path Functions (expected component)
  - Entrepreneurship
  - Outstanding teaching
  - General fabulousness

Don’t Be a Drab Little Crab, Man!

- You can include supplemental info
  - Letters of support from students, collaborators, etc.

Moana

Accentuate the Positive (Chi dossier, 2018)

Research Statement

Highlights

- Major scientific contributions and broader impacts:
  - Mechanism and small molecule modulation of amyloid protein aggregation and toxicity in protein misfolding diseases such as Alzheimer's (AD) and Parkinson's diseases (PD)
  - Applications of conjugated polymers and oligomers as biocides, biosensors, and theranostics
  - Combined high resolution experimental techniques and large-scale computational approach to resolving biomolecular interactions, structures and dynamics
  - Broader impacts: a better understanding of the cause and disease process of AD and PD, early detection and novel therapeutic approaches to combating AD and PD.
- Research funding of **$4.5 M ($2.1 M as PI, $2.4 M as co-PI)** from a variety of sources including federal agencies, foundations, national labs, and private donors
- **3 NSF awards as PI** supporting my fundamental research in biomolecular assemblies and applications:
  - NSF CBET CAREER Interfacial Processes and Thermodynamics Program: https://www.nsf.gov/awardsearch/showAward?AWD_ID=1150855&HistoricalAwards=false
  - NSF Division of Materials Research, Biomaterials Program: https://www.nsf.gov/awardsearch/showAward?AWD_ID=1207362&HistoricalAwards=false
  - NSF-CBET Nano-biosensing Program: https://www.nsf.gov/awardsearch/showAward?AWD_ID=1605225&HistoricalAwards=false
- A record of high-quality and high impact publications with **h-index = 25**, i10-index = 32; total number of citations = 3125 (as of 10/7/2018)
- Recent work in biosensor and theranostics development leading to publication in *PNAS*, 1 patent application, 1 invention disclosure, and my group's participation on an NSF I-Corps team
- **Research in undergraduate education and pedagogy** supported by a $2 M NSF grant and producing 2 ASEE conference proceedings

Accentuate the Positive (Canavan dossier, 2018)

RESEARCH STATEMENT

Highlights since tenure in 2011:

- Externally funded research funded program has yielded research expenditures over $5.17M
- Fundamental studies by Canavan group has led to an implant currently in human trials
- Scholarly works include 16 invited talks and 23 publications post-tenure; research is consistently cited (H-index: 17; i10-index: 21; total citations: 1626; most highly cited work: 196 citations)
- Made AVS Fellow in 2018 in recognition of sustained and outstanding technical contributions in biomaterials and surface analysis
- New research direction has resulted in 8 provisional patent applications submitted, 2 companies founded, and $70K raised in 1.5 years
- Mentorship of undergraduate and graduate students has resulted in 9 NSF I-Corps Site team projects to date, with 89% receiving "Go" in Go/No Go decision
- Demonstrated commitment to the recruitment, mentoring, and promotion of outstanding students from diverse backgrounds; of *62 students and postdoctoral fellows since 2005; 58% female; 45% Hispanic, 6% Native American, 15% Asian American, 7% African American, 27% White; 2 US Veterans, 2 people with disabilities.*
- Mentored 5 NSF Graduate Student Research Fellowship awardees and 1 NIH Kirschstein Training Grant awardee—the most of any faculty member in the School of Engineering

De-centuate the negative

early stage breast cancer. In order to prepare and recuperate from the first three surgeries I had to undergo to treat my condition, I took extended medical leave from June 2016 to January 2017. Prior to taking sick leave, I graduated the majority of my group so that only 1 MS student remained, and shut down lab operations. During my sick leave, I was grateful for the excellent treatment I received from the doctors and nurses, but became frustrated with the conditions that cancer patients and others with serious health considerations have to live with after their treatment is over. I realized that although many of these inconveniences could have relatively simple solutions, but because there is little support to pursue such projects, patients facing these disabilities need to cobble together their own solutions. This frustration led me to think, "Someone needs to solve this problem!" until gradually I realized that—between my research experience, education, and personal health issues—I *was* that someone.

Figure RS2. Publications and other scholarly works for Canavan group have built consistently at UNM, and continue to grow.

Let's try it!
What are you proud of?

What makes your research different?

- Work with diverse students?
- High H-index, lots of funding, lots of pubs?
- Unique collaborations, pubs in high-impact journals, made Fellow?
- Outstanding record with graduates going into academia, lots of awards?

TEACHING STATEMENT

- Address the expected components
  - Courses taught
  - ICES/IDEA/Etc. scores
  - Courses developed

From *9 to 5*, which is a fantastic movie. Seriously. Go watch it.

Accentuate the Positive (Canavan & Chi dossiers, 2018)

Teaching Statement

Teaching Highlights

- Awarded Outstanding Teacher of the Year at UNM in 2018
- Consistently high (4.5-5.0/5.0 scale) course evaluations from students
- 3 publications in peer-reviewed journals focused on engineering education to date
- Taught 35 courses at UNM to date, including both undergraduate and graduate level students, core courses as well as electives.
- Strive to continuously assess and improve my teaching and have been responsible for designing (or redesigning) several of the most successful courses in the CBE and BME programs.

Teaching Statement

Highlights

- Developed student centric, active and inquiry-based learning strategies in a lecture-based class that include flipped-class room techniques, hands-on in-class activities, and a designing challenge
- Undergraduate education and pedagogy research supported by a $2 M NSF grant and producing 2 peer-reviewed ASEE conference proceedings
- A demonstrated track record of dedication to mentoring and commitment to diversity, equity, inclusion, and student success: 46 undergraduates and high school students mentored (57% women and 43% underrepresented minorities) and 10 postdocs and graduate students mentored (60% female, 50% underrepresented minorities, and 20% with disability).

Let's try it! What are you proud of?

What makes your teaching different?

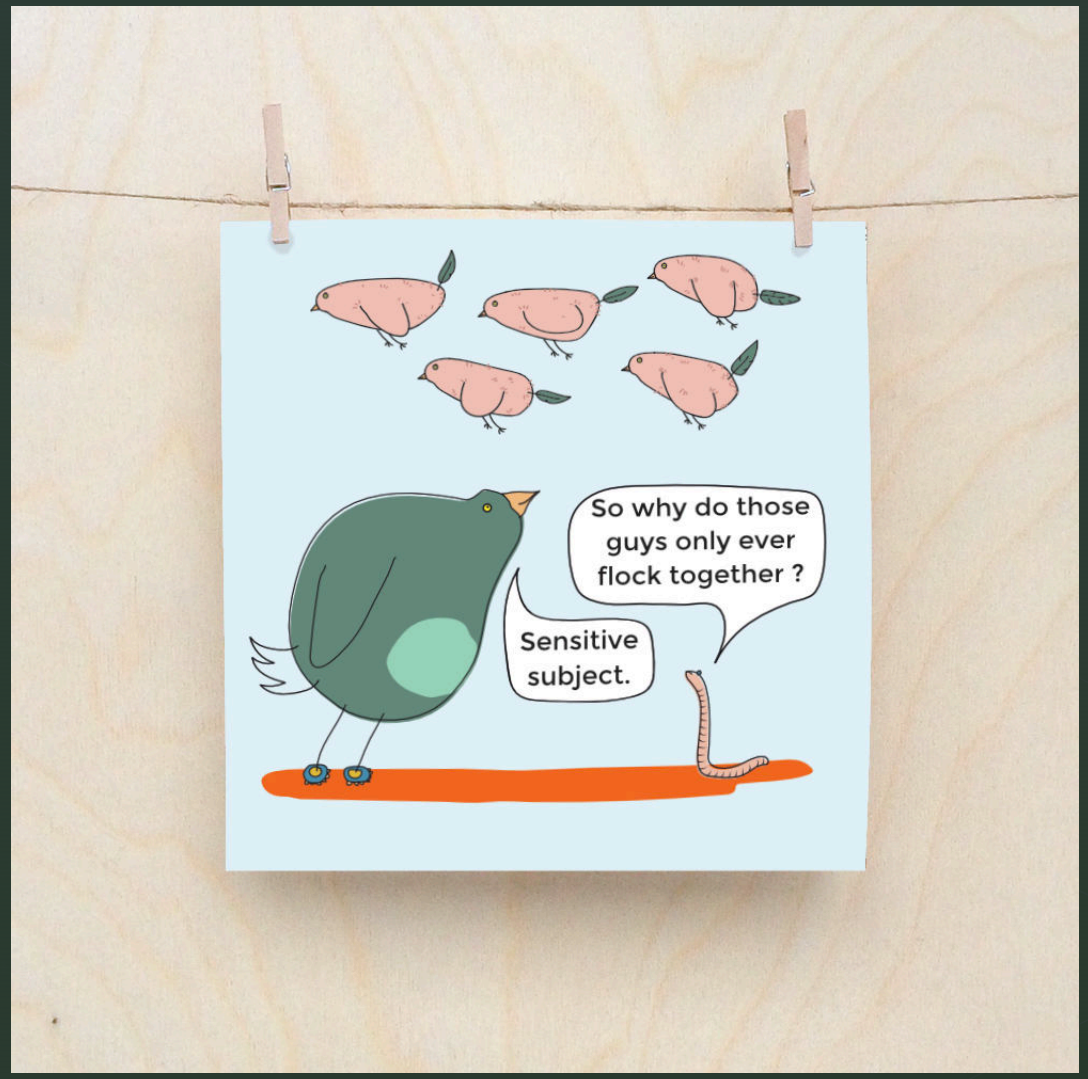
Publications in STEM education?

HIGH COURSE EVALUATION SCORES?

Unique courses you developed?

Teaching awards?

Birds of a Feather Flock Together



https://www.objectables.co.uk/listing/593814887/birds-of-a-feather-funny-

So URM/URG Students Might Flock to You —Keep Track!

	Name	Student Status				Gender		Race/Ethnicity					Other	
		HS	UG	Grad	Postdoc	Male	Female	Hispanic	Native Am.	Asian	Black	White	Disability	US Vetera
51				1			1					1		
52			1				1					1		
53		1					1	1						
54			1				1		1					
55			1	1			1	1						
56			1				1	1						
57				1			1	1						
58			1			1		1						
59			1			1					1			
60			1			1						1		
61			1				1				1			
62				1			1	1						
63		1				1								
64			1			1								
65			1			1								
66			1			1								
67				1			1							
68					1		1							
69				1		1								
	Total	5	37	29	5	29	40							

Total # in group	69
%Men in group	42
%Women in group	58
%Hispanic in group	42
%Native American in group	6
%Asian American in group	14
%African American in group	7
%Caucasian in group	30
# Veterans	2
# Disabled	3

Canavan group demographic data, 2005-present

Create your Coven/Avenger Team

- Two important take-home points:
  - In fields with few women/strong masculine stereotypes, attrition can be prevented by creating *microenvironments*
  - Early interventions are vital to preventing attrition

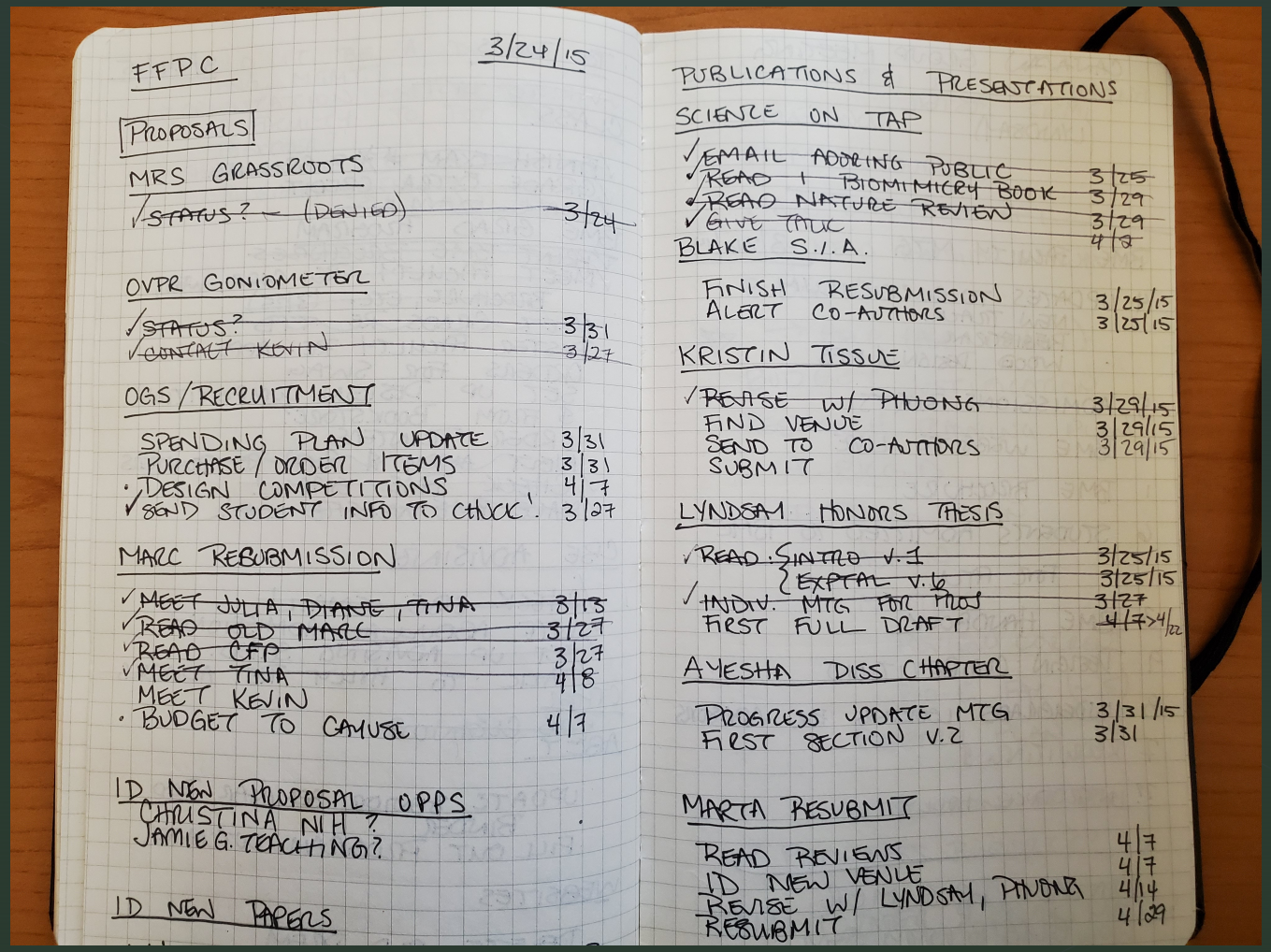
Dasgupta, et al., "Female Peers in Small Work Groups Enhance Women's Motivation, Verbal Participation, and Career Aspirations in Engineering," *PNAS* 2015.

What Can Your Coven Do For YOU?

- Nominate you for awards
- Evaluate your teaching during your ~~best~~ typical lecture
- Invite you to be guest editor, invited speaker, etc.
- Give you recommendations on your letter writers
- Have them review your proposals and dossier sections

Hocus Pocus

Female Faculty Promotion Club



FFPC 3/24/15

PROPOSALS

MRS GRASSROOTS

✓ ~~STATUS? — (DENIED)~~ ~~3/24~~

OVPR GONIOMETER

✓ ~~STATUS?~~ 3/31

✓ ~~CONTACT KEVIN~~ ~~3/27~~

OGS / RECRUITMENT

SPENDING PLAN UPDATE 3/31

PURCHASE / ORDER ITEMS 3/31

• DESIGN COMPETITIONS 4/7

✓ SEND STUDENT INFO TO CHUCK! 3/27

MARC RESUBMISSION

✓ ~~MEET JULIA, DIANE, TINA~~ ~~3/13~~

✓ ~~READ OLD MARC~~ ~~3/27~~

✓ ~~READ CFP~~ 3/27

✓ ~~MEET TINA~~ 4/8

MEET KEVIN

• BUDGET TO CAMUSE 4/7

ID NEW PROPOSAL OPPS

CHRISTINA NIH?

JAMIE G. TEACHING?

ID NEW PAPERS

PUBLICATIONS & PRESENTATIONS

SCIENCE ON TAP

✓ ~~EMAIL ADDING PUBLIC~~ ~~3/25~~

✓ ~~READ 1 BIOMIMICRY BOOK~~ ~~3/29~~

• ~~READ NATURE REVIEW~~ ~~3/29~~

✓ ~~GIVE TALK~~ ~~4/2~~

BLAKE S.I.A.

FINISH RESUBMISSION 3/25/15

ALERT CO-AUTHORS 3/25/15

KRISTIN TISSUE

✓ ~~REVISE W/ PHUONG~~ ~~3/29/15~~

FIND VENUE 3/29/15

SEND TO CO-AUTHORS 3/29/15

SUBMIT

LYNDSAY HONORS THESIS

✓ ~~READ: SINTILO V.1~~ ~~3/25/15~~

~~EXPTAL V.6~~ ~~3/25/15~~

✓ ~~INDIV. MTG FOR PROJ~~ ~~3/27~~

FIRST FULL DRAFT ~~4/7~~ >4/22

AYESHA DISS CHAPTER

PROGRESS UPDATE MTG 3/31/15

FIRST SECTION V.2 3/31

MARTA RESUBMIT

READ REVIEWS 4/7

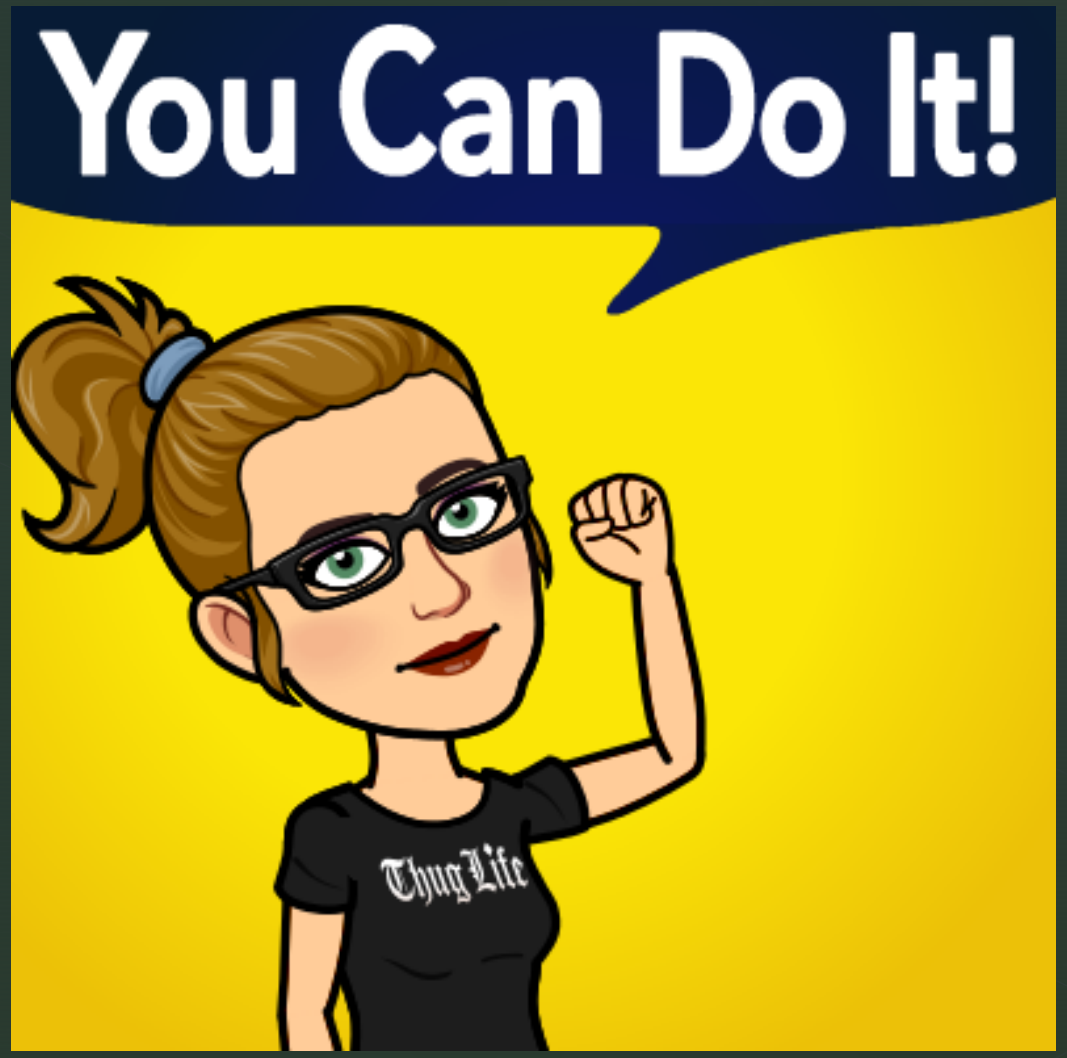
ID NEW VENUE 4/7

REVISE W/ LYNDSAY, PHUONG 4/14

RESUBMIT 4/29

Notes from HEC logbook 2015, meetings with SBH

Final Thoughts



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