Learning Outcomes from a Graduate Learning Community in a College of Agriculture

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Introduction

- ❖ Completion rates of master's degrees in STEM fields (4-year) is ~66% (Council of Graduate Schools, 2013).

    - ❖ Lags behind MBA programs at 81% completion in 4 years
- ❖ On average, 55-64% of PhD students in STEM complete their program in ten years (Sowell, 2008; Sowell, Allum, & Okahana, 2015).

- ❖ Most important factors contributing to successful completion of master's program was motivation and determination (Council of Graduate Schools, 2013).

Introduction

- Underrepresentation of women and minorities in STEM fields is a national concern. Women hold less than 40% of STEM-related faculty positions; URMs represent under 10% of positions in STEM.
- Academic motivation and adjustment of women and URM students are affected by concerns about belonging and being targets of discrimination among academic contexts (Fisher et al., 2019).
- Findings support organizational interventions of clarifying expectations and standards as helping to reduce academic disparities and alleviating distress associated with all students in graduate education (Fisher et al., 2019).

Introduction

- Tinto Persistence Model (Tinto, 1993)

  - Academic and social integration are key to graduate student success or failure.
    - Academic- technical understanding of content area and general communication and writing skills
    - Social-acceptance within department, college, and university

- Learning communities have the potential to address both academic and social integration of graduate students (Romsdahl & Hill, 2012).

Introduction

- ❖ Mentoring for Success in Research and Leadership Learning Community
- ❖ Focused on retention, success, timely progress towards degree, and developing leadership and mentor/mentee skills
- ❖ Learning Community included students from the following areas:
  - ➤ First generation college students
  - ➤ Persons with disabilities
  - ➤ Veterans
  - ➤ Underrepresented minority students (URM)
- ❖ Students were on Excellence or Diversity Fellowship within the College of Agriculture

- ❖ Learning Community met bi-monthly for two hours

Context for Study

- ❖ Community Building Activity-Challenge Ropes Course
- ❖ Socials at End of Semester
- ❖ Food at All Meetings
- ❖ Meeting Topics:
  - ➤ Degree Expectations/Taking Ownership of Degree
  - ➤ Peer Mentors
  - ➤ Faculty Expectations Panel
  - ➤ Myers-Briggs Personality Type Assessment
  - ➤ Academic Writing Tips
  - ➤ StrengthsFinder Leadership Assessment
  - ➤ Implicit Bias
  - ➤ Grant Writing
  - ➤ Teamwork Skills
  - ➤ Student Counseling Center-Maintaining Balance in Graduate School

Purpose

Describe the impact of a graduate learning community for graduate students in a college of agriculture and life sciences.

Research Question

❖ What are the perceived knowledge gains and planned behavior changes of graduate students as a result of the learning community?

Methods

- ❖ Population (N = 20)
  - ➢ 1st semester graduate students
  - ➢ 2 cohort years (2017-2018; 2018-2019)
  - ➢ 12 Pursuing a PhD
  - ➢ 8 Pursuing a Master's degree
  - ➢ 7 Male
  - ➢ 13 Female
- ❖ Evaluation methodology
- ❖ Post meeting surveys about knowledge and behavioral changes; Likert-type questions and open-ended response
- ❖ Responses collected via Google forms

Data Collection and Analysis

❖ Post-Meeting Surveys

❖ n's vary for each survey based on attendance and survey completion

❖ Means taken from survey responses to measure positive response to meeting topic

Meeting Topic	n	Mean	Notes
Academic Writing	10	4.46	
Taking Ownership of your Degree	10	4.42	
MBTI (Personality Types)	11	4.40	
Grant Writing	12	4.35	
Implicit Bias	7	4.29	Evaluations only collected for one cohort
Faculty Expectations of Graduate Students	15	4.24	
Discovering your Strengths	15	4.23	
Peer Mentor	14	4.21	

Note: Information compiled from 2017-2018 and 2018-2019 cohorts, N = 20; *Likert Scale of 1-5, 1= Strongly Disagree, 5= Strongly Agree

Findings: Academic Writing

- ❖ Most highly regarded session:

    - ➤ *What is something you learned about writing in this session?*
        - ■ "I have actually used a few of the strategies by our speaker already in trying to improve my writing habits!"
        - ■ "I need to write regularly so the topic remains fresh in my mind."
        - ■ "Cite at least 25% from the journal you want to publish in"
        - ■ "How to be a proactive writer during a short time"

    - ➤ *What would have improved this session?*
        - ■ "I do wish this session came earlier in the year…. having it around Oct/Nov/Dec would have helped me establish better writing habits earlier."

    - ➤ *Other comments about this session:*
        - ■ "One of my favorite sessions from all year! Dr. Holli is a powerhouse and it was awesome to interact with someone so passionate and accomplished!"
        - ■ "Very empowering presentation. Made me want to write and be a better graduate student."

Findings:

- ❖ Meaningful Quotes:
  - ➢ Taking Ownership of your Degree
    - ■ "I was aware of consequences and possible ways to fix such issues if possible. Also made me aware of the importance of the various deadlines that required to be met before graduating."
    - ■ "I feel like I now know resources that would be helpful to me as a student"
    - ■ "I feel better supported by my college and this community, beyond just my department."
  - ➢ Peer Mentoring
    - ■ "I believe having a peer walk alongside me during this experience will add to my support system."
    - ■ "...all of the first years have the same fears when it comes to getting our degrees (finding a job and actually enjoying what it is that we're studying)"
  - ➢ Faculty Expectations
    - ■ "...it is important to be the "captain of your own ship" and do something you are interested in...planning on meeting with my adviser so that I can add to my project to make it more interesting for myself instead of what my adviser wants me to research."
    - ■ "I will make sure to be ready whenever I meet with my professor, bring a notebook and take notes. A very big thing that I took home was being an active student, ...make sure to manage my time better, where I spend a good amount of time on my research and on classes work."

Findings:

- ❖ Meaningful Quotes:

  - ➢ MBTI
    - ■ "I learned some things that will better help my communication skills. Being able to discuss how my personality types may view something versus how others view it."
    - ■ "Introversion - I now know why networking is so uncomfortable for me and how I can work around it."

  - ➢ Strengths
    - ■ "Knowing my strengths will help me better utilize them. I can sometimes focus on my weaknesses, so being able to see the various ways of which I can use my strengths will aid me throughout grad school."
    - ■ "I will apply these concepts everyday in life and work. Learning about the strengths of others was very insightful. It helped me recognize the uniqueness of my own strengths but it really helped me see the invaluable strengths in others that are essential to recognize in any group setting."

Findings:

- ❖ Meaningful Quotes:

  - ➢ Grant Writing
    - ■ "Even though I'm lucky to have funding, learning how to go out and get funding will become a useful skill. Even if I don't plan to go on in academia, technical/competitive writing skills will definitely set me apart from others."

  - ➢ Implicit Bias
    - ■ "The Kirwan Institute for the Study of Race and Ethnicity is a great resource! I now follow them on Facebook."

  - ➢ Senior Graduate Panel
    - ■ "I learned to roll with the punches and to find external hobbies and support systems outside of my research."
    - ■ "Everybody is feeling the same, I'm not alone."
    - ■ "Not everyone has the same path through graduate school and you have to figure out what works best for you."

End of Year Evaluation (n = 6; Cohort 2017-2018)

- The topics covered in the Graduate Learning Community were relevant to my needs as a student. (*M = 5.00*)
- The Graduate Learning Community helped me transition to Texas A&M. (*M = 4.5*)
- The Graduate Learning Community provided a supportive community for me as a student. (*M = 4.83*)
- The Graduate Learning Community helped me feel more confident in my academic abilities at Texas A&M University. (*M = 4.5*)

End of Year Evaluation of Behaviors Changed

- "I'm not as hard on myself when I meet failures (as I'm understanding they should be expected); I can recognize my implicit biases and am working to remove them; I am now approaching writing as less of a chore."

- "I've become more confident in myself/ability to succeed in grad school."

- "It helped me better address conflict/challenges with my PhD advisor."

- "I know how to navigate courses better and determine how many courses I should take each semester."

Open-Ended Response About Overall Impact of LC

- **Social capital/Networking**

- "It has been wonderful to have a community of other students to meet with every 2 weeks and share struggles and support. I have really enjoyed this program."

- "It's helped me know that I'm not alone in my struggles and that some things, other people experience as well."

- "I love this learning community! I feel very well-supported and empowered by this strategy so thank you!"

- "Having a biweekly meeting where I can learn new things and hang out with people in different departments has been incredible. Especially getting to know other students who have become great friends and also getting to know (and be supported by) faculty and staff along the way."

Open-Ended Response About Overall Impact of LC

- **Great resources**

- "It has provided me with information that I probably wouldn't have gotten or sought out elsewhere. I guess it provided me with information that I didn't know would be a good idea to know."

- "It has provided me with helpful information on time management, grant writing, and how to overcome challenges in graduate school."

- "This community has been a great space to get to know others outside my department and to raise awareness of campus resources."

Suggestions for Learning Community Enhancement

❖ Structure & Content:

➤ Handouts or email for the speakers which details what they plan to speak about over the session.
➤ More resources on where to improve writing techniques
➤ Maybe applying writing techniques towards different styles of writing
➤ Dig a little deeper into how to develop your strengths/using in the workforce
➤ More games... make it fun
➤ Practice in session instead of just tips.
➤ Providing a sample grant application that has been funded
➤ More examples of how to work through bias in the workplace/at school
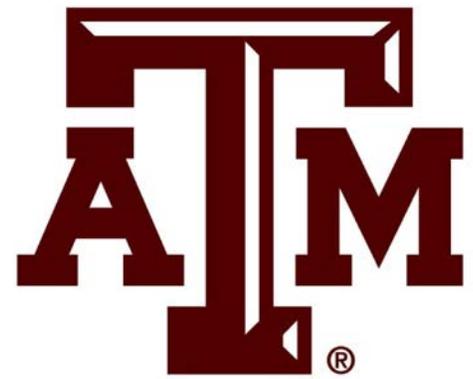
Suggestions for LC Enhancement

❖ Social Interaction:

➢ "I don't know if speed dating was the absolute best way to get to know each other. I think how people interact in a group or small groups really shows personality and I think maybe that sort of setup would be fun."

➢ "More time in speed mentoring, and not having to share the time with someone else."

➢ "Pairing with someone with a different personality type to get a new perspective on issues"

Conclusions

❖ Graduate students had positive perceptions of all topics that were evaluated (all means >4.0)

❖ Overall impact had positive response (all means >4.5)

❖ Academic Writing = highly rated session

❖ Social capital/Networking emphasized by most students as impactful

❖ More:
  ➢ Resources
  ➢ Time
  ➢ Practical Application
  ➢ Examples / Samples
  ➢ Fun
  ➢ Opportunities to get to know those with different backgrounds / personalities

Questions?