Promotion of Student Well-being via Successful Navigation through Conflict Resolution Pathways

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Boni Yraguen is a recent PhD graduate from Georgia Tech. Her dissertation work is in the field of combustion/thermo./fluids. She studies a novel diesel injection strategy: Ducted Fuel Injection (DFI), which is used to drastically decrease soot emissions during diesel combustion. In addition to her thesis work, Boni is passionate about engineering education. She has led and participated in various educational studies on the impact of student reflections, authentic learning assignments, ad the use of technology in the classroom. Boni hopes to pursue a career in academia with a focus on teaching and engineering education.

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Promotion of Graduate Student Well-being via Successful Navigation through Conflict Resolution Pathways

Dr. Boni Yraguen, Bettina Arkhurst, Derek Nichols, Jennifer Molnar, Dr. Macrae Montgomery Addressing advising and departmental issues can reduce graduate attrition and improve well-being

Average Population: Graduate Students:		Depression and Anxiety
Two significant sources:	Advising	Departmental practices and programmatic stressors
-	e Student:	systemic problem can be solved by hoo-ing and

"We can help students, but they don't come to us until it is too late, and they have already decided to quit"

"If anyone thinks that this systemic problem can be solved by hoo-ing and haaa-ing [in a] meeting is either dishonest, stupid or an entrenched stake holder. There is no solution to this problem without some foundational shift. There is no foundational shift possible with the current framework."

Huge disconnect between faculty and student beliefs regarding institutional support and conflict resolution

Literature has well-documented a mental health crisis among graduate students in America with rates of depression and anxiety occurring ~4X as often for graduate students than their peers (same age group, but the general population).

In addition to a significant concern for graduate student well-being, attrition in our graduate programs is high: between 40 and 60%. *animation will remove 50% of the grad student icons*

Literature on both attrition and wel- being points most frequently to issues with advising and departmental or programmatic issues as a cause for both phenomena.

Anecdotally, as graduate students, we understood that there are a wide range of conflicts and concerns that would come up that students feel helpless to resolve. This helplessness, or lack of agency, can prove detrimental to a student's well-being and persistence in the program. Furthermore, at our institution there seemed to be a large disconnect between faculty and students on whether GS conflicts were resolvable. *read quotes* Therefore, we set out to better understand the source of this disconnect by mapping-out graduate student conflicts and their potential resolution pathways. Ultimately our hope is to provide students with the much-needed information that will give them the agency to navigate their conflicts and concerns.

Attrition Citations:

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Dept. Issues and Advising Citation:

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Positionality:• Sought• Changed Advisors• Well-being negativelyDepartmental/Institutional• Changed Fields of Study• Impacted: cPTSD, physicalSupport regarding a concern(s)• Graduated Late (6+ years and counting)• Well-being negatively				
Why is there a disconnect in perceived efficacy of institutional support systems between graduate students and faculty?		How best does one navigate these systems to most efficiently and effectively resolve a concern?		
Map all levels of institutional support systems:				
identify equip all parties gaps understanding of	consistent	provide graduate students the agency to navigate a concern and		

Our group formed as a response to significant well-being concerns faced by students in our department and that we had faced personally (before covid). Each of us had personal experience attempting to address a conflict or concern (with peers and/or advisors) and it was clear to us that the inability to find a mutually beneficial solution was a significant detriment to graduate student well-being and persistence. Each of us could clearly identify the ways in which the lack of a resolution resulted in significant delays in graduation and detriments to our well-being.

make informed decisions

understanding of support systems

Therefore, we asked two questions: ...*read them*

These questions set us down a path that resulted in



First, we surveyed mechanical engineering students to identify the conflicts that they had or were concerned about facing. We also asked them to gauge their awareness of institutional resources or resolution pathways that they would go to for support. (Sent to ALL ME grad students. ~15% response rate)

Next, using the concerns listed by students, we developed a series of hypothetical graduate student conflicts and interviewed institute faculty administrators to ask what they would do in these situations, if there were relevant policies or codes, and what an expected outcome might be if a student brought this concern to their office. These faculty interviews ultimately led us to analyze institutional policy and codes of conduct within the context of the grad student hypotheticals as well. (Note that every faculty we requested an interview with agreed to participate. We selected starting with our department leadership and interviewed everyone in the "chain of command" above them up to the Dean and Vice Provost Levels).

From there, we began building our "map" of institutional support systems. We hired a computer science student to help develop a search engine (the Conflict-Resolution navigator Tool CRNT) that could help students navigate conflicts, tested the alphaprototype of the tool, and currently we are making iterative improvements to account for useability, longevity, and to incorporate evaluation metrics.

Graduate student frustrations span both the conflictresolution *process* and *outcomes*.



From our survey, we identified 75 unique conflicts or "stressor scenarios". These scenarios, shown in the figure as a black line, are at the intersection of the nature of the concern (shown in gold) and who the concern relates to (the involved party shown in navy).

We also identified that student frustrations with seeking institutional support related to both the process and the outcomes of involving the institution.

read process quotes

read outcomes quotes

Note: maybe reduce to one quote each for time, but I am unsure exactly how long presentations are for this conference. I have designed for 20min here.

Faculty lack a clear and consistent understanding of institutional resources and policies

When presented with hypotheticals relating to _____, X% of faculty indicated that a relevant policy...



Most often, if they thought a policy existed, they could not identify or locate which policy did apply.

All faculty indicated that any communication from a grad student regarding an ethical concern constituted "protected activity" under the antiretaliation policy.

Anti-retaliation Policy:

- Retaliation must follow Protected Activity
- Only formal claims made to HR or Ethicspoint that directly cite a policy violation are necessarily considered *Protected Activity*
- Burden of proof that retaliation has occurred falls to the student
- Common consequences for graduate students are not considered retaliation.



Our interviews with administration revealed that there was rarely a clear pathway to resolve a graduate student concern. Furthermore – we could not get a consensus on if almost any hypothetical posed had an institutional policy that might apply.

Between 25% and 60% of faculty interviewed on hypotheticals relating to intimidation, racism, safety, and title 9 issues thought that a policy that might apply to a student's case *existed*. Even so, faculty could rarely name or locate the policy they had in mind.

The only item which faculty reached consensus on were cases related to retaliation for reporting a concern. Unfortunately, all faculty interviewed incorrectly believed that any form of report made to them would be protected under the anti-retaliation policy.

Furthermore, common consequences that seem like they would be

retaliation are not considered as such. For example, while being expelled from the university would be retaliation, being fired from your lab and losing the funding that supports you to stay at the university is not. There is also a distinction between "career consequences" like not getting a promotion and "academic consequences" like being removed as an (or lead) author on a paper. Only "career consequences" are considered under this policy.

Ambiguous "employee" status of graduate students can lead to structural violence.



Interactive exercise:

Read the hypothetical shown: "An advisor is making..." and ask audience to raise hands if they think an anti-harassment policy might apply in this case.

animate anti-harassment policy to appear Then explain that the antiharassment policy is only applicable if the behavior is a direct result of being a member of a protected group and that that claim can be substantiated. Fortunately, this policy applies to all members of the institutional community. But the hypothetical doesn't mention any sexist, racist, etc. remarks.

Then ask audience to raise hands if they think a workplace violence policy could apply.

animate workplace violence policy to appear For this policy to apply, there does not have to be an obvious cause of the behavior, the behavior does have to be substantiated, but it is an employee policy.

Now it is important to know that even though graduate students are part-time employees, when they report concerns to the institution they are viewed as students.

Employee/Human Resources views the duties GSs carry out under their GRA or GTA contracts as "student duties" therefore an advisor threatening to stop funding a student for not meeting a research deliverable deadline is interpreted the same as an instructor threatening to fail a student for not taking an exam worth 50% of their grade.

This means that in most grad student cases there is no policy that guides institutional processes for navigating resolution. Graduate student concerns effectively fall through the cracks. *animation "grad students" falls into black hole*

Even though these policy issues are distressing and need to be addressed (GT has already made some changes as a result of this work), this does not mean that resolution for graduate students is impossible.



To make resolution more likely we have developed the CRT which is effectively a search engine that has a manual or keyword search to help grad students identify their issues and potential resolution pathways.

A search engine helps the user identify the mostrelevant conflict scenario

Manual or Keyword search:



As a student types into the search bar the conflict is narrowed down by involved party...

A search engine helps the user identify the mostrelevant conflict scenario

Manual or Keyword search:



...and nature of the concern.

The user is provided with where to go, how to report, and relevant policies



Then once the user identifies the most-relevant concern they are taken to a page showing the recommended "chain of command" and and policies that might be relevant. A chain of command is presented because the institution typically prefers to resolve concerns at the lowest level first and escalate them only when necessary.





For each office a student might contact the following information is provided: *read questions for the sections of content included on the site*

Furthermore, evaluation metrics will be shown as the examples above:

- The site will include faculty reported confidence that they can (in that position) effectively resolve the conflict without escalating it higher. (From survey of all faculty in each role across all colleges and departments)
- Student reported resolution status (resolved/not resolved). (Interactive site will prompt students to review the resolution process and will calculate and display quantitative feedback)
- And student reported time-to-resolution at this level.

The user is provided with where to go, how to report, and relevant policies

GT Responsible Conduct of Research Chain of Command: **Policy:** 1. Responsible Conduct of Research Office · What does this policy cover? 2. Associate Chair for Graduate Studies • Where can I find it? 3. Department Chair Summary of key points Assistant VP for Conflict Resolution 4. 5. ... · I'm a grad student! What does 6. ... this specifically mean for me? 7. ... How to use this policy/how to report a violation to the

GT Responsible Conduct of Research Compliance Policy

Relevant Policies:

For policies, the following information is presented: *read sections "What does this policy..."*

university.

Using the CRNT nearly doubled the % of students who would report a concern to the institution.



- Users were more informed on policy
- Users were more informed on conflictresolution pathways
- 100% of users would attempt conflictresolution of some form
- 44% would seek institutional support

We tested the alpha protopye of out tool on graduate students. We gave them a hypothetical and asked them to use the tool with their hypothetical in mind. Based on the results of a pre- and post-test, users were more informed on policy and more informed on conflict resolution pathways.

Furthermore, after using the tool 100% of users would engage in some form of conflict resolution with 44% willing to involve the institute. (This is double the number of students who reported they would involve the institute prior to using the tool).



In conclusion,

The nebulous status of graduate students as both student and employee result in unclear or non-existent pathways for resolution for most concerns.

The faculty that support graduate students lack a clear understanding of policies and processes which leads to mis-direction, mis-information, and slow resolution. This lack of clarity fosters a sense of helplessness among students and breeds mistrust between students and faculty.

The conflict resolution navigator tool helps users know where and how to report concerns, provides policy information, and level-sets expectations for seeking institutional support. Using the tool doubles the number of students who would report a concern to the institute.

Our future work is aimed at expanding the tool to include pathways for what one might do is pursuing conflict resolution is not preferred, including guides for institute community on interpersonal skills, build community between students and faculty, and incorporate evaluation metrics to help users navigate concerns and institutional leaders identify areas of improvement.