



GRADUATE STUDENT COUNCIL

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EXECUTIVE SUMMARY

The importance of expanding mentorship training for the future of Vanderbilt was highlighted by the Graduate Education Study Group in their report *A New Vision for Graduate Education at Vanderbilt*. Currently, there are very few formal mentorship training programs for mentors and trainees at Vanderbilt. Furthermore, awareness of these programs is surprisingly low. These problems can be solved by increasing awareness for current opportunities, creating new opportunities, and rewarding participation in mentorship training. Specific recommendations for implementing these solutions are discussed in the proposal. Successfully implementing these programs will improve the lives of students, put Vanderbilt at the forefront of RCR topics, create renowned mentors, and ultimately lead to recruiting stellar students and faculty.

Problem

Mentorship includes aspects of teaching, guiding the mentee through decisions, conflict resolution, and building professional relationships, among other topics. One of the factors that can make or break a graduate career is the relationship between mentees and mentors, especially the relationship with one's advisor or principle investigator (PI). Vanderbilt does an excellent job of recruiting researchers whose toolset in experimental design and grantsmanship are excellent, but few have any prior training in many of the aforementioned mentorship skills. Graduate students are taught what the mentor/mentee relationship is, what to expect from a mentor, and given advice on how to choose a good mentor, but this is all focused on the mentee perspective. Very little is done to train PIs to be better mentors once they have joined the Vanderbilt family or to teach graduate students and post docs how to be good mentors in the future. When lab conflicts arise, mentors and mentees do their best to resolve them, but many do not have the skill set to even know what the resolutions are. Despite their own successes, mentors may not know how to teach their students to achieve the same success in areas such as networking and leading.

The major problems with mentorship training at Vanderbilt are as follows. 1) There is a shortage in training opportunities for the non-teaching aspects of mentorship and 2) low awareness for all mentorship training opportunities. 3) The majority of graduate students do not feel fully prepared to be mentors in the future and 4) they want mentorship training resources to be more available for themselves and faculty. 5) Faculty who engage in mentorship training and are good mentors deserve more public recognition for this fact, and 6) graduate students and post docs need a defined course of action to get help with mentors who are not fulfilling or are violating their mentorship duties.

The importance of expanding mentorship training for the future of Vanderbilt was highlighted by the Graduate Education Study Group in their report *A New Vision for Graduate Education at Vanderbilt*. The report states:

"We believe that the Graduate School should play a more formal role in addressing the less heralded but critical aspects of training, including skills such as budget and personnel management, mentoring, networking, entrepreneurship, and conflict resolution. [...] Providing training in effective communication, conflict resolution, stress management, and professionalism will be immediately useful, even during the graduate school period. [...] Though mentorship skills are frequently associated with academia and related careers, its principles and practices are widely applicable to other employment realms. [...] The university and the Graduate School should publicly and actively prioritize good mentoring by providing recognition and time off for good mentors, providing training in mentoring, incentivizing mentoring."

To discover what mentorship training programs currently exist at Vanderbilt, individuals from the Center for Teaching, the Biomedical Research Education and Training (BRET) Office of Career Development, Vanderbilt Women in Science and Engineering (VUWiSE) and the School of Medicine's Office of Faculty Affairs were contacted. Current programs related to mentorship training which are available at Vanderbilt for graduate students, post docs and faculty are listed in Appendix A.

The currently available programs are great for post docs and graduate students to learn how to teach. Unfortunately, there are very few opportunities to receive formal training on how to be a better mentor in the non-teaching aspects of mentoring. For example, when questioned about whether VUWiSE offered any formal or informal mentorship training, president Abigail Searfloss said the group did not offer such training, however:

"If the GSC is interested in creating an event/crash course on mentorship I am sure we would be very interested in teaming up with you all to help support this mission."

Abigail also expressed that there was low participation of post-docs and faculty in the program, as well as the difficulties associated with the task of creating mentee/mentor bonds between program participants.

Additionally, many graduate students are unaware of these programs. In a survey conducted by the Graduate Student Council (GSC) for this proposal, we asked graduate students whether they were aware of the opportunities open to graduate students in Appendix A, as well as whether they were interested in further training. The full data is available in Appendix B, with discussion in Appendix C. In summary, graduate student awareness for most of the existing training opportunities was alarmingly low (20-35%). Additionally, the majority of students feel only somewhat prepared or unprepared to be mentors and want additional training.

Finally, moving away from graduate and post docs, even fewer opportunities exist for current and future PIs, as outlined in Appendix A. Although survey data was not collected on faculty interest in expanding mentorship training, personal communications with various faculty at Vanderbilt suggest that the faculty feel that there are not enough opportunities for them to increase their mentorship skills, and that they would be open to and interested in expanding their mentorship training. In line with this, when graduate students were asked for their opinions on the faculty receiving formal mentorship training, 93% responded that mentorship training should be made available to faculty, and 70% responded that, at the very least, basic mentorship training should be mandatory for faculty.

Two final problems relating to mentorship training are the lack of incentives for faculty to pursue further training and the fact that there is no clear route for mentees having mentorship issues with their PIs to receive help. Minor interpersonal problems may be solved by a visit to the Psychological and Counseling Center, but there is no established route to deal with more pervasive or lab-wide mentorship issues that do not involve concerns related to scientific integrity.

Solution

- 1) Increase awareness for existing mentorship training opportunities.
- 2) Create new mentorship training opportunities for graduate students, post docs and faculty.
- 3) Integrate these new opportunities with rewards (e.g. RCR credit for graduate students and post docs or encourage students look for a history of mentorship training in their prospective mentors to give compliant faculty an edge).
- 4) Establish a system for graduate students and post docs to seek help with mentee/mentor relationship problems.

IMPACT

1) Improve the lives of current graduate students and post docs and recruit stellar students *and* mentors in the future. Strong, healthy mentor/mentee relationships reduce tension and stress in labs, improve work relationships, make all parties happier, and generally make work life easier. Potential students and mentors will see the difference in positive work environment, giving Vanderbilt an edge on the competition. Vanderbilt would have the privilege of adding this training as a talking point to their recruitment activities. "Our PIs are given training to be the best mentors for you. We will offer you training to be better mentors, which you will not receive at other universities."

2) Put Vanderbilt at the forefront of RCR topics including Authorship and Publication, Collaborative Research, Laboratory Safety, and Peer Review in the eyes of government agencies. Besides being an RCR topic in and of itself, lab conflicts and mentor/ mentee relationships come up in all of the topics listed above.

3) Create better mentors by providing stellar role models and providing training to graduate students and post docs. One of the most pervasive complaints in academia revolve around interpersonal relationships issues, whether between mentee/mentor or between colleagues. This training would set a standard to start addressing these issues and make academia overall a more open and less stressful career path. Beyond academia, these skills improve work lives in any career path.

GOALS

1. Increase the graduate student and post doc awareness of existing mentorship training opportunities.
2. Provide additional training opportunities to graduate students and post docs so they feel more prepared to be mentors in the future. Additionally, integrate RCR credit into these opportunities to so that the new programs both further mentorship training and make participants more competitive for grants based on their RCR history.
3. Supply mandatory, basic mentorship training with optional advanced training to all research staff that mentor graduate students and post docs.
4. Provide graduate students, post docs and faculty with on-going, easily accessible advisors (such as Dr. David Sacks) for navigating specific mentorship situations that go beyond this basic training.
5. Create a formal system for graduate students and post docs to address and get help with pervasive mentorship issues to protect graduate students and post docs from mentors who are not fulfilling their mentorship duties.

IMPLEMENTATION

The following steps should be taken to increase awareness and implement new mentorship opportunities at Vanderbilt:

AWARENESS

1) To increase awareness, incoming students should be informed of all existing programs. There should be a single page on the Vanderbilt website devoted to informing others about all these opportunities.

NEW OPPORTUNITIES AND REWARDS

2) For graduate students and post docs, new opportunities need to be created. These could come in the form of modules and/or a mentorship crash course. Both would be incentivized via RCR credit opportunities.

3) A separate module would be created to provide faculty with basic mentorship training. This would be required of all faculty interested in mentoring graduate students and post-docs. More advanced training could come in the form of mini modules or seminars which are optional and chosen based on the interests of the faculty.

4) Faculty would be rewarded for completing additional training by adding a system to mark when what training they have received. This would be made available on list of faculty accepting graduate students, which would encourage graduate students to pick more highly trained mentors. Additionally, seeking training could be seen as a favorable behavior for faculty seeking tenure.

NAVIGATING CONFLICT

5) Vanderbilt needs to provide and more widely advertise the existence of individuals who can help graduate students, post docs and faculty resolve interpersonal conflict.

6) There needs to be a decided on course of action for assisting graduate students and post docs whose mentors who are neglecting or violating their duties. This would require a confidant who would assess the situation and give advice on what can be done. Additionally, if action is required by the university in the case of more serious offences, this confidant would help graduate students and post docs navigate this process.

Each of these steps is expanded upon below.

AWARENESS:

First, to address the low awareness issue, the existing opportunities for mentorship training need to be advertised more extensively. Since many new graduate students enter through the IGP, part of one session in the IGP curriculum could be devoted to making graduate students aware of the important of mentorship training and what opportunities currently exist at Vanderbilt. Alternatively or in addition to this, mentorship opportunities could be a discussion covered in IMPACT. A third option would be to make a short online module that cover mentorship training opportunities that all new graduate students and post docs would be required to complete by the end of their first year. None of these options are

mutually exclusive. All of these options would give more weight to this kind of training so that the graduate students would be more likely to pursue this kind of training.

There should also be a section of the Vanderbilt website that acts as a hub for all of these mentorship opportunities. This would help current students find more information about them. Right now, the best way to discover what Vanderbilt offers in terms of mentorship training is to ask different offices what they have and whether they can refer you to other programs hosted by other sectors of Vanderbilt (the method by which information was obtained for this proposal). The decentralized organization of mentorship information likely contributes to the low awareness among graduate students about these opportunities. Creating a single stop on the Vanderbilt or BRET website to find all of these opportunities would make it much easier to find these resources so more people would take advantage of them.

NEW OPPORTUNITIES AND REWARDS:

Next, more training opportunities should be provided to incoming and existing faculty, graduate students and post-docs on how to be better mentors are required. Topics that should be covered in new training opportunities include topics such as: 1) Conflict resolution and how to spot problems before they become conflicts. 2) How to be a good mentor and mentor responsibilities. 3) Navigating complex/tense interpersonal relationships within the lab. 4) Dealing with personal issues (whether from the mentor or mentee) that affect work relationships and responsibilities. 5) Learning how to adapt mentoring style to the mentee.

For graduate students and post docs, this training could come in the form of a course or new module that focuses on mentorship training. Unlike the standard modules, this module should count for Responsible Conduct of Research (RCR) credit, because mentorship practices are in and of themselves an RCR issue. In addition to providing training for graduate students and post docs interested in furthering their training, this course would provide an excellent opportunity for late stage graduate students and post docs who need to fulfill RCR training requirements to remain compliant with current grants or to bolster new grant applications. Ideally, this course would have minimal redundancy with the current ASPIRE EQ IQ course and consist of 8-10 hours spread over 8-10 weeks. In the past, the Center for Teaching hosted a 12 hour, 4-session mentoring workshop. The outline for this workshop is still available on the Center for Teaching website (last updated in 2005), and would make an excellent model for this new course. In brief, this workshop covered mentorship topics through interactive case studies, role-play, and discussion which required critical thinking and teamwork. The workshop was designed to be engaging and promote individual exploration which would be excellent for new mentors.

Additionally, new graduate students finishing their IGP year could be asked or required to attend a single-afternoon, 3-4 hour "crash course on mentorship" to introduce them to basic mentorship topics. Again, this could include an element of RCR credit. While only the 8 hours of RCR credit received in the BRET

RCR day are required to fulfill the first year RCR requirements, the extra hours provided in the crash course would put Vanderbilt graduate students ahead of the game for grant applications.

To increase mentorship training among faculty, incoming faculty should be required to take a multisession, face-to-face, interactive course on mentorship prior to being allowed to take graduate students into their lab. This could be similar to the course offered to graduate students and post docs, or it could follow a different paradigm, (e.g. follow the example set by the programs at the medical center). More advanced training could come in the form of other, short modules or one-time training seminars for specific topics of interest to the faculty community at large. Such events should be offered on an annual or twice yearly basis. To reward compliant new faculty, seeking additional mentorship training could become a behavior that is looked at favorably on review for tenure. To encourage and reward new and tenured faculty who continue seeking on-going training to better their mentoring, those whom complete this training should have this fact noted on the profiles of mentors seeking students which is made available to IGP students. The system to demarcate this training would show how many training opportunities the prospective mentor has taken advantage of and how recently this training was completed. While not participating in training will not directly do harm to PIs, they may be encouraged to attend the proposed seminars training if graduate students preferably pick PIs who have recently undergone mentorship additional training or have a long record of ongoing training. Finally, additional rewards, including certificates, public recognition, ect should be implemented to show that Vanderbilt values mentorship.

NAVIGATING CONFLICT:

Vanderbilt already has an excellent start on providing assistance with resolving interpersonal conflicts by providing the services of Dr. David Sacks. However, this has not been widely advertised. In conversation, some graduate students stated they were not aware that Dr. Sacks had taken over this role from Dr. Mistie Germek. Furthermore, it is unclear whether faculty may also speak with Dr. Sacks. Vanderbilt needs to make an effort to better inform the community that there is someone they can speak to about interpersonal conflicts as well as who this person is and where this person is located. Unresolved interpersonal conflicts are not uncommon in any work environment. If Vanderbilt makes this fact clear and normalizes the act of seeking expert help on solving these conflicts, there will be fewer unresolved conflicts.

Finally, Vanderbilt needs to create a route by which graduate students and post docs can lodge complaints about their mentors and receive help in navigating these issues. Vanderbilt already has a system in place for dealing with mentor issues revolving around research integrity, and we are told who to talk to (Dr. Roger Chalkley) and assured of confidentiality at many points during our first year and beyond, to ensure that all graduate students know how to deal with these situations. This is not the case for any other mentorship issues. There needs to be a confidential contact graduate students can speak to and who can give advice on what the first steps are to resolve these conflicts. Importantly, this person should not be

involved in research to minimize the chances that this person will have a conflict of interest (e.g. being involved in collaborations with the mentor in question) for helping the graduate students or post docs. There also needs to be a method by which the university can investigate these complaints if needed and decided on courses of action to deal with issues ranging from neglect/frequent unexplained absences, to hostility/passive aggressive behavior, discrimination, and sexual harassment. Creating this route would be in line with Vanderbilt's general stance that this is a safe campus where violence and discrimination are discouraged and punished.

Currently, mentorship training opportunities are provided by several different organizations which are not centrally coordinated. Combined with the fact that existing faculty and in these organizations already have their time and resources tied up in existing programs and the requirement of a confidant, this suggests that this proposal may require a new faculty member to fully execute all aspects. This new faculty worker would communicate with the different organizations and programs help them improve their existing programs, as well as design and teach the new courses proposed here. Because this new hire would be aware of all of the mentorship opportunities on campus, they would be able to act as a mentorship training counselor to the graduate students, post docs and faculty. Furthermore, if this new hire had some background in psychology, this individual would make an excellent the first contact for graduate students and post docs experiencing mentor/mentee relationship problems.

ESTIMATED COST

If a new faculty member is hired, the cost of this proposal would be the yearly salary for this new hire plus the cost of any material required for the courses they design. ASPIRE modules have been hosted in the past for 0-800\$ depending on whether the module requires external resources (e.g. textbooks) or whether the course design was compensated for their time. Considering the wide breadth of tasks the proposal aims to accomplish, this would be a small cost to pay to earn the benefits of expanding mentorship topics at Vanderbilt.

Appendix A: Current mentorship opportunities provided at Vanderbilt

Teaching and opportunities to act as a mentor:

- The Center for Teaching offers a program to earn a Certificate in College Teaching. This teaching training includes one semester of didactic lecture about teaching followed by another semester of enhancing their teaching skills in the classroom.
- The Center for Teaching hosts Individual Consultation sessions to help graduate students, post-docs and faculty with teaching issues. Both of these opportunities focus on teaching skills.
- The BRET Office's ASPIRE program offers sponsored teaching internships, giving graduate students the chance to act as teachers.
- VUWiSE hosts a mentorship program to link graduate students, post docs and faculty to undergraduates interested in furthering their education in STEM fields. These mentor/mentee relationships are meant to encourage and help the undergraduates reach their goals.

Conflict resolution and building professional relationships:

- BRET's ASPIRE Module EQ + IQ = Career Success, which focuses on conflict resolution and workplace relationships among other topics. This is a series of 5 1.5 hour sessions.
- BRET's ASPIRE Café for Postdoctoral Fellows has offered a single, 1 hour session on conflict resolution per year for the last several years.
- Dr. David Sacks (previously Dr. Mistie Germek), stationed at the Psychological and Counseling Center (PCC), will take appointments to discuss and help resolve interpersonal conflicts.
- Kate Stuart stated that the BRET Office has recently applied for an IRACDA grant which includes a proposal to make a new post doc module entitled How to be a Mentor, which would be taught by Kathy Gould. As of the end of January, it was unknown whether the grant would be funded or not.

Training opportunities available to faculty:

- The Center for Teaching hosts the Teaching Assistant Orientation, which focuses on teaching.
- The Center for Teaching hosts Individual Consultation sessions to help graduate students, post-docs and faculty with teaching issues.
- It is unclear whether faculty may make use of Dr. Sack's services at the PCC.

The Faculty Affairs and Career Development office on the medical side of campus offers two courses on mentorship training. However, the manager of the Faculty Development Programs Ashley Wood was unavailable to comment on whether university side faculty would also be allowed to partake in these programs. Considering the recent university and medical center split, it seems unlikely that university staff would be eligible for these programs. For the sake of completeness, these two programs have been included below:

- The Junior Faculty Leadership Development Program. This program is intended for medical faculty interested in conducting "bench research." The course focuses on topics including enhancing understanding of personal leadership styles, individual strengths, and the impacts when working and leading teams.
- The Mid-Career Skills Building Program, focuses on topics including developing tools to become an outstanding mentor, personnel management, negotiation, conflict resolution and communication and improving communication skills. The program also results in a certificate of completion.

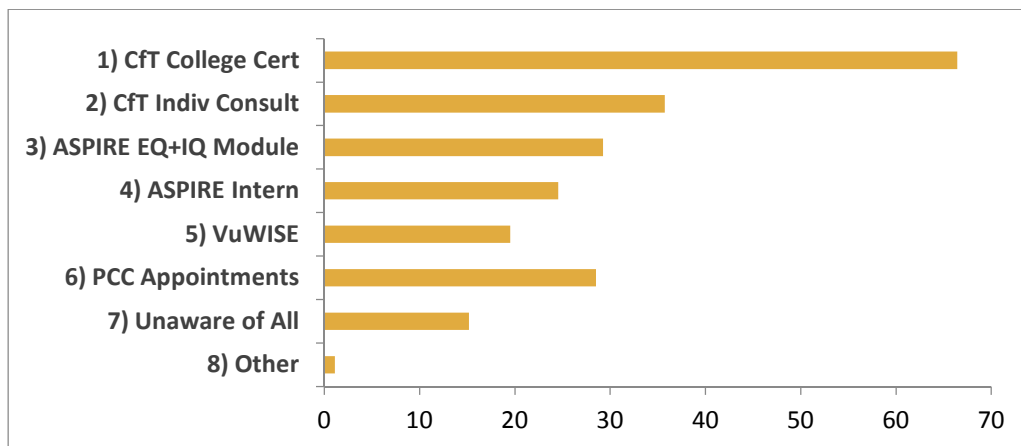
Appendix B: Survey data collected by the Graduate Student Counsel

The GSC sent out a short, Redcap survey by email on January 31st, 2017 to graduate students, which was closed on February 3rd, 2017. 277 students responded questions 1 and 4, while 4 abstained. 279 responded to questions 2 and 3, while 2 abstained.

Q1: Mentorship in this question is defined to include aspects of teaching, guiding, conflict resolution and building meaningful professional relationships. Were you aware of the following opportunities Vanderbilt offers for mentor training and assistance with conflict resolution? (Check all that apply)

- 1) Center for Teaching's Certificate in College Teaching (for teaching skills) (184, 66.4%)
- 2) Center for Teaching's Individual Consultations (for teaching skills) (99, 35.7%)
- 3) ASPIRE module EQ + IQ = Career Success (conflict resolution, workplace communication, building professional relationships) (81, 29.2%)
- 4) ASPIRE-sponsored teaching internships (experience in being a mentor) (68, 24.5%)
- 5) VUWiSE's graduate/undergraduate mentorship program (experience in being a mentor) (54, 19.5%)
- 6) Appointments with Dr. David Sacks (previously Dr. Mistie Germek) at the Psychological and Counseling Center (assistance with interpersonal relationship conflicts) (79, 28.5%)
- 7) I was not aware of any of these. (42, 15.2%)
- 8) Other (3, 1.1%)

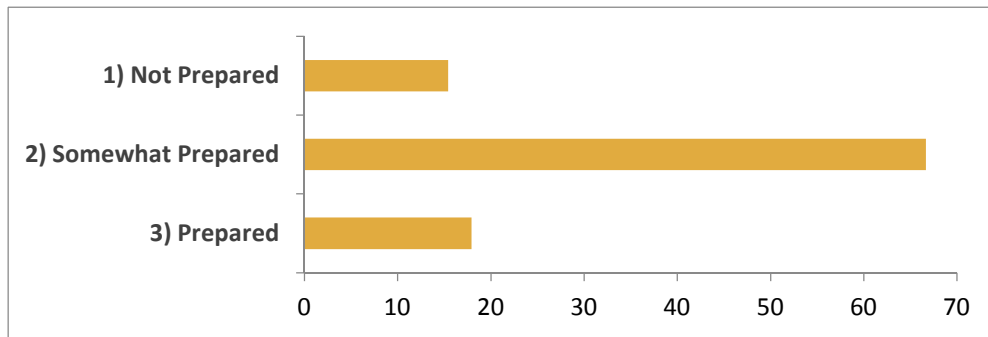
Figure 1: Percentage of respondents aware of each opportunity.



Q2: Do you feel that you are prepared to be a mentor in your future career?

- 1) I do not feel prepared (43, 15.4%)
- 2) I feel somewhat prepared (186, 66.7%)
- 3) I feel prepared (50, 17.9%)

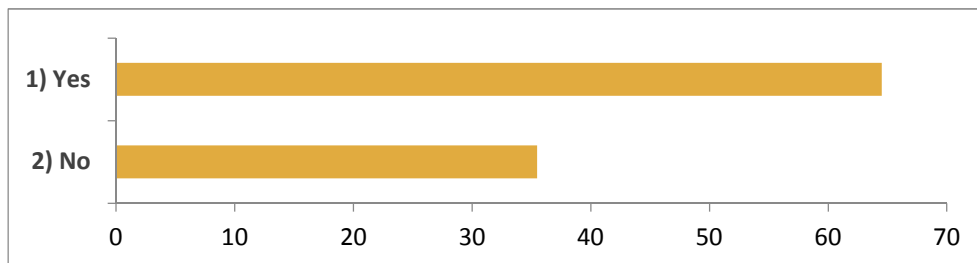
Figure 2: Percentage of respondents that feel prepared to be mentors.



Q3: Would you like additional mentorship training?

- 1) Yes (180, 64.5%)
- 2) No (99, 35.5%)

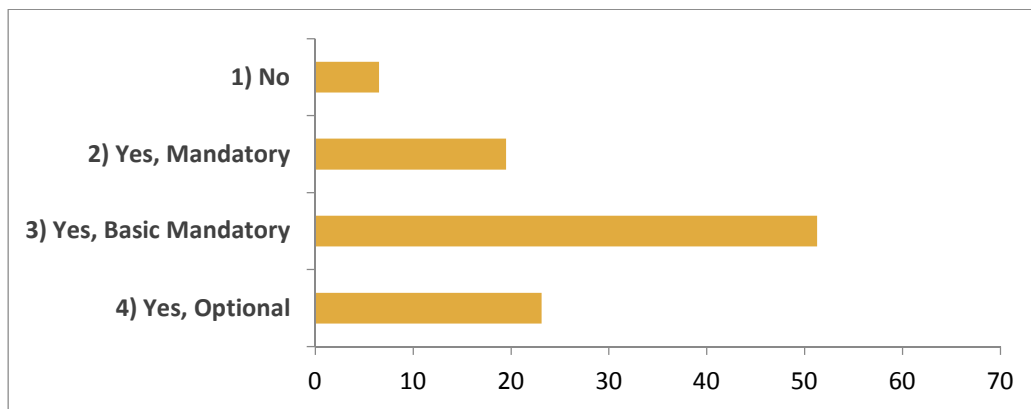
Figure 3: Percentage of respondents that want more mentorship training.



Q4: Do you want Vanderbilt to provide more mentorship training opportunities for existing and incoming faculty?

- 1) No. (18, 6.5%)
- 2) Yes, and this training should be mandatory. (54, 19.4%)
- 3) Yes, and basic mentorship training should be mandatory, with optional advanced training. (142, 51.1%)
- 4) Yes, but this training should be optional, not mandatory. (64, 23.0%)

Figure 4: Percentage of respondents that want faculty to receive mentorship training.



Appendix C: Summary and conclusions about GSC survey data

In the survey conducted by the Graduate Student Council (GSC) for this proposal, we asked graduate students whether they were aware of the opportunities available to graduate students in Appendix A. The most well known programs were those offered by the Center for Teaching, with 66% awareness for the certificate program and 36% awareness for the individual consultations. There was only 25% awareness for the ASPIRE-sponsored internships and 20% for VUWiSE's mentor program. Looking at the opportunities for learning how to build professional relationships and conflict resolution, 36% of respondents were aware of the EQ + IQ ASPIRE module and 30% were aware of counselor Dr. Sacks (previously Dr. Germek). Finally, 15% of responding graduate students marked that they were unaware of any of these opportunities. Considering how critical mentorship practices are for any future career, be it in academia, industry, government, or some other path, the low awareness of programs to foster mentorship skills in graduate students is alarming.

When asked whether they felt prepared to be mentors in their future careers, only 17% of responding graduate students reported "yes." The majority, 67% felt only somewhat prepared and the final 15% did not feel prepared. Unsurprisingly, 65% of respondents marked that they wanted additional mentorship training. It is interesting that more individuals felt unprepared or only somewhat prepared than wanted mentorship training. This may be because some of these individuals are interested in careers outside of academia and may not realize that mentorship is an important aspect of all career paths. The total number of respondents interested in further training (180) greatly exceeds the number of available slots for graduate students in the only non-teaching opportunity available to graduate students, the ASPIRE EQ IQ Module. Modules only have a small number of slots for students (often around 20), and each module is held only once per year. In fact, this school year, the planned fall session of the EQ IQ module was postponed until spring. Kate Stuart, who of the faculty currently running this module, said:

"The EQ IQ Module is a big offering, but not one that has been traditionally popular with our trainees. This is the first year we have had a good number register, and the roster this spring is 19."

From conversations with fellow graduate students, the previously low numbers may be due to students not understanding this module's clever title; While IQ is a well known acronym, the newer EQ, meaning emotional quotient, is still making its way into common vernacular. When it was explained that the title related to social skills and the module including topics such as conflict resolution and professional relationship building, several individuals who were previously not interested in the module became more excited about the module and expressed interest in taking it. This example echoes the concerns about graduate student awareness; even when students are aware a program exists, they do not necessarily understand what it is about or what engaging in a given program will do for their career goals.

As far as training for faculty goes, graduate students overwhelmingly want mentorship training to be available for faculty (93%). Additionally, 70% responded that at least basic mentorship training should be mandatory, and 50% believed there should be optional advanced training. These numbers highlight that graduate students value having highly trained mentors. Requiring such training would give Vanderbilt an edge when recruiting in addition to improving the environment for current students. However, as explained in the main proposal, it would be important to make this training worth the time of the faculty by providing incentives and rewards for remaining compliant with mentorship training requirements and engaging in ongoing training. Faculty entering training in a negative mindset are less likely to get the full benefit of said training, because they will see it as another burden on their busy schedules rather than as a training opportunity that will benefit them (and their labs) in the future.