

Introduction

- The graduate advisee-advisor relationship has been viewed as one type of mentoring relationship, which is critical in the students' degree progress.
- Some graduate students perceive that their relationships with advisors are remote and disappointing.
- A prerequisite to build a successful relationship is that the advisor-advisee pair is the right match.
- The literature on the dynamics involved in the advisor/advisee selection is scant.
- Personal and socio-cultural schema are abstractions of an individual's lived experiences that come into play in subsequent interactions and decision making. The faculty-student relationship schema might serve as a basis for understanding the dynamics of advisor-advisee selection. The schema for an ideal advisor-advisee relationship may be different for international students from that for American students.

Research Purposes

- The primary purpose of our study is to gain perspective on how graduate students select their advisors and determine if there are common criteria used in selection process.
- The second purpose of our study is to explore the personal factors of gender, faculty status, and nationality that may affect the initiation of advisor-advisee relationships.

Research Methods

Sampling frame: All the potential participants including both graduate students and faculty members of STEM departments were invited to participate in the study through e-mails.

Participants: A total of 19 graduate students (7 males and 12 females) and 35 faculty members (19 males and 16 females) participated in the study.

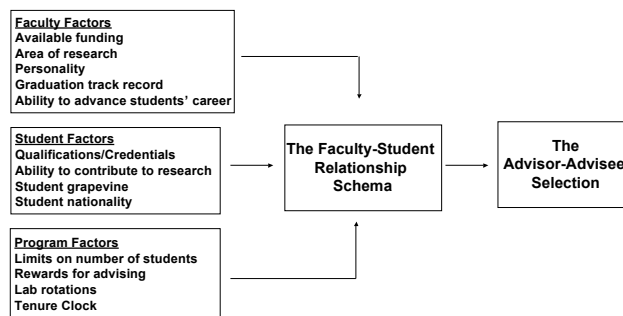
Data collection: An interdisciplinary team of faculty and staff conducted the focus groups and individual interviews. Six focus groups were held, one each for domestic graduate students, international graduate students, pre-tenure female faculty, pre-tenure male faculty, tenured female faculty, and tenured male faculty. Individual interviews were carried out with international students and the tenured female faculty since the number of participants was small in their focus groups.

Data analysis: The focus group and individual interview data were audio-taped and transcribed; the interview data were compiled into electronic documents. NVivo 7.0 was used for coding and grouping the themes. Researchers with training in social science background analyzed the transcripts to identify common themes.

Findings

The data revealed that the initiation of an advisor-advisee relationship is a mutual selection process in which the students and faculty consider several factors and weigh them before making a decision. The three factors that the participants reported as important in the advisor-advisee selection likely influence faculty-student schema and in turn, the selection process: Faculty, Student, and Program Factors.

Proposed Model of Advisor-Advisee Selection as Perceived by Student and Faculty Participants



Faculty Factors

Funding availability, area of research, personality, graduation track record and perceived ability of the faculty member to advance students' career are perceived as critical factors.

The following are perceptions of **women faculty** by participants: "less visible", "do not fit the image of 'ideal scientist'", "have less commitment to research" because of the family roles that they play, are expected to be "nurturing" in interpersonal interactions and work style. As a result, the students who seek an "ideal scientist" as the advisor may be apprehensive about women faculty.

Student Factors

Student credentials (qualifications and skills prior to joining the program) and perceived ability to contribute to research are reported as important in the choice of an advisee. In addition, the student grapevine is acknowledged as influential in sharing information about the faculty, especially about their personality and work style. Students might use the grapevine both as a source of information and support.

International students are perceived as "unfamiliar with the US educational system, language and culture" which makes advising them more difficult. Some international students consider graduate school "a privilege" and have good "work ethic" and research focus. The culture and communication barriers may result in conflicts.

Domestic students have been perceived to be "more sophisticated and savvy" in navigating through the educational system. They may consider graduate school "an entitlement" and be more concerned about "life style" and less focused on research in comparison with some international students.

Program Factors

Limits on the number of students a faculty or a program can accept, rewards for advising (Masters student versus PhD student), lab rotations, and tenure clock have been perceived as influential factors in the selection of advisors and advisees. It has been perceived that

Junior faculty do research in 'hot' areas, are available to students, are hands-on in training, easy to interact with since they are close to students in age and experience, but are under tremendous pressure to get tenure, may be less credible and less established in research.

Senior faculty have been perceived as doing research on some old/established topics, less available to students, less approachable, but having credibility and name in the field that helps the students find jobs.

Conclusions

As a result, the students who want hands-on training on cutting edge areas and desire for publications might gravitate towards a junior faculty member who adds a "hotness factor". Students who prefer the stability of established labs, self-directed learning and/or the backing of the advisor's fame while starting a career may opt to work with senior faculty. In turn, if a faculty wants a student who works harder and puts less emphasis on "lifestyle", the preference might be for international students. Although the advisor-advisee selection is an integral part of graduate education, there is an overall lack of clarity and transparency. There is no clear model or guideline for either the faculty or students. It is not uncommon to find multiple processes in the same department and students being at various stages of advisor selection. Faculty members also have to face inequitable or unfair distribution of advising responsibilities. Both faculty and student participants reported a sense of competition and insecurity.

Recommendations

Clarity in departmental policy

- Develop clarity in expectations and responsibilities.
- Create a timeline for milestones to mark student progress.

Departmental orientation for the students

- Implement a formal information session on how to navigate through graduate school, information that is particularly important for international students:
 - How to choose an advisor (e.g., what to look for, how to seek information).
 - Create awareness among students about the various schemas – gender, faculty status and nationality – that might creep into the decision making.
 - Appoint a faculty or experienced student in the department to help guide the incoming student toward finding the right match.

Making information available

- Regularly update faculty web pages to include information that helps the students to make an informed decision (e.g., research interests in general, current research projects, research assistants, sources of funding, list of publications).
- Advertise current and/or planned research projects.
- Schedule yearly 'meet-the faculty' seminars where each faculty member has the opportunity to present his/her research.

Support the faculty

- Open discussion among faculty members about their student resource needs.
- Create support systems, especially for the junior faculty, who are in need of graduate assistants to advance their research.
- Equitable rewards for training master and doctoral students.
- Develop parameters to assess the effectiveness of advising other than the successful graduation of the advisee.

Improving the climate

- Reliance on schemas can be a reflection of larger department or university climate issues where schemas or stereotypes are tolerated or reinforced. Advisor-advisee selection may be only one instance where they manifest. Hence, efforts to address the department- or university- level climate issues should be supplemented with multiple initiatives such as research on advisor-advisee selection and interactions.