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Work-in-Progress: How Students View the Role of Faculty Advisors in the SWE Organization

Abstract

The Society of Women Engineers (SWE) collegiate sections attract many men and women to the society, and they can be among the largest and most active student organizations on the university campuses. A key factor to boost membership is the active involvement of faculty advisors, who serve as the liaison between SWE collegiate sections, the university, the National SWE organization, and professional SWE members. A group of SWE faculty advisors previously conducted a survey of faculty advisors and counselors, with advisors and counselors aggregated in the results, to determine what aspects of their role they consider most significant, and how they engage with the students. The study showed that faculty advisors play an important role in providing continuity to the section, participation in and understanding of the larger organization, and in mentoring students on both general leadership and SWE leadership.

This paper examines how students view the role of their faculty advisor in their SWE collegiate section. The objectives of this study are to understand the challenges that collegiate sections face and what types of support they need from their faculty advisor. A survey about the level of importance of different roles of faculty advisors was conducted. Additional ways students feel their faculty advisor could help them was also addressed. The data was analyzed to identify key factors that faculty advisors should consider while serving in these roles within student sections. The findings were then compared to the results of the self-assessment of the faculty advisors.

Introduction

A good faculty advisor is a critical part of a vital student organization [1, 2], and serving as such an advisor is often part of a faculty member's service commitment to their university and to the profession. The critical role faculty advisors have is recognized by many organizations, both through the guidance they provide to faculty advisors and through the existence of awards for Outstanding Advisors. SWE, for one, has an annual award for an Outstanding Faculty Advisor, as well as an Outstanding SWE Counselor award [3]. The Society of Automotive Engineers (SAE) International has a recognition process for faculty advisors [5] and tells advisors that "In addition to offering invaluable guidance and advice, you provide the continuity needed in a Collegiate Chapter. Student membership is fluid and officers change annually, so the Faculty Advisor is the critical link maximizing the value your students receive" [4]. Other societies such as the American Society of Mechanical Engineers (ASME), the Institute of Electrical and Electronic Engineers (IEEE), and the American Society of Civil Engineers (ASCE) have similar awards, such as ASME's Outstanding Student Section Advisor Award [6], IEEE's Outstanding Branch Counselor and Branch Chapter Advisor Award [7], and ASCE's Outstanding Faculty/Practitioner Advisor Award [8]. These awards typically require student letters of support

or recommendation; however, the criteria are based on the organization's views of what an outstanding faculty advisor should be doing.

Some literature on faculty advisors does exist, in addition to the descriptions of the role provided by the various organizations. Evans et al. [1] stated that the faculty advisor is one of seven keys to a successful ASCE student chapter. Giacalone [9] claimed that advisors have the opportunity to lead through the lens of adaptive leadership by assisting the students address and find solutions to the challenges that present themselves. Specifically, advisors can give options, be a role model, define authority, and make necessary changes in order to help students. Similarly, Somerton and Genik [10] have stated that faculty advisors provide continuity, and support strong student membership and officers. Banks and Combs [11] argued that the faculty advisor plays a pivotal role in developing a successful business-oriented student organization. Faculty advisor is one of the few reasonably consistent links from year to year. However, there is an almost complete dearth of research on the details of what students actually want from their faculty advisors in any of these organizations. Consequently, there is no data on how well aligned universities, professional societies, faculty advisors, and students may be in their views of what a faculty advisor should be doing.

This paper begins to address this gap, as it presents the views of students in an ongoing study of what students want from their faculty advisor. The study focuses on SWE Collegiate members; however, as a previous study [2] indicated that the roles of advisors are similar in SWE and other organizations, it is anticipated that the results will be generalizable to similar organizations.

Methods

This study was conducted by distribution of a survey to SWE collegiate members. Distribution was conducted via social media, and is ongoing, as this is a Work in Progress. The survey was IRB-approved at an author's institution, as well as by the SWE Director of Research, and was launched in December 2019. As of the writing of this draft, 11 valid responses have been received; it is anticipated that additional responses will be received, hence, this is a Work in Progress.

The survey was developed based on the goals of the study, with several rounds of review and revision to ensure that the questions would be interpreted as intended. Questions were also designed to align with an earlier survey of the faculty advisors, in order to provide a basis for comparison. Further details on the development of those questions are given in [2]. Survey data were analyzed using standard statistical methods. The written reflections were analyzed using open coding, in order to allow themes to emerge.

Results

Out of the initial responses received, SWE sections of all sizes were represented, with small sections predominating, as shown in Figure 1.

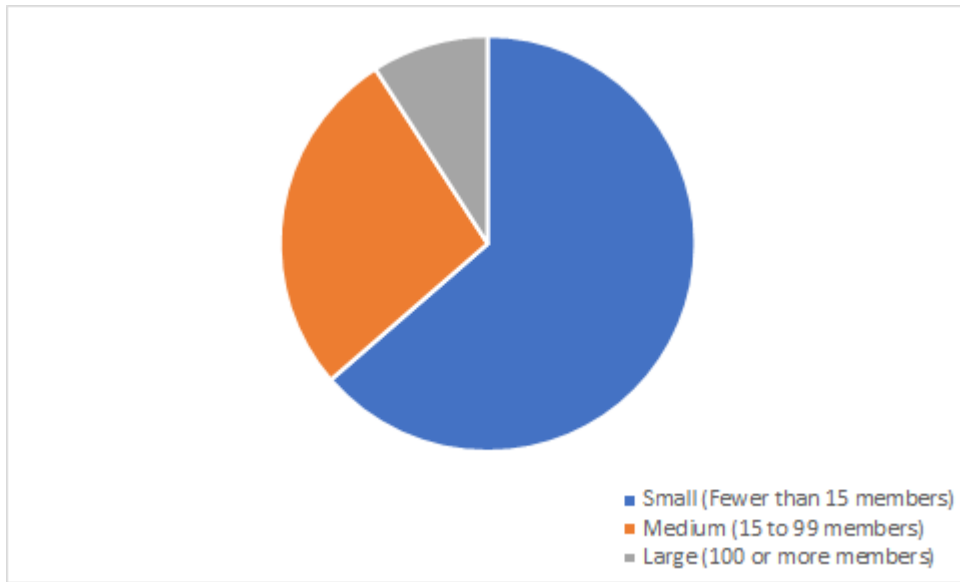


Figure 1: Section Size of Respondents

Respondents reported being very engaged in their SWE collegiate sections, with an average rating of 4.45 on a five-point scale. All but one reported having some sort of role as an officer or committee chair in their section, as shown in Figure 2.

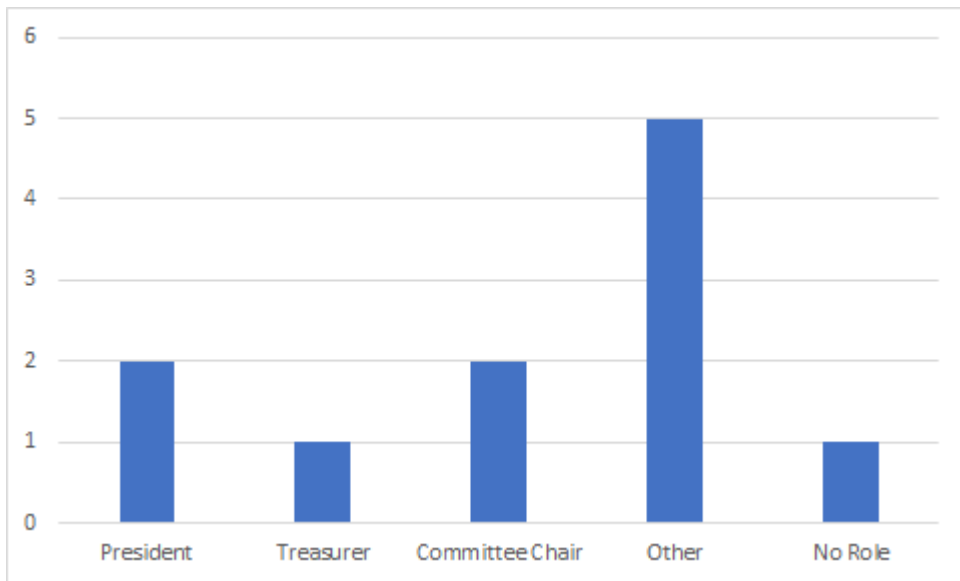


Figure 2: Roles of Respondents

The respondents represented a range of students, with the exception that freshmen and doctoral students are not yet represented in the responses. The distribution of class standing is shown in Figure 3.

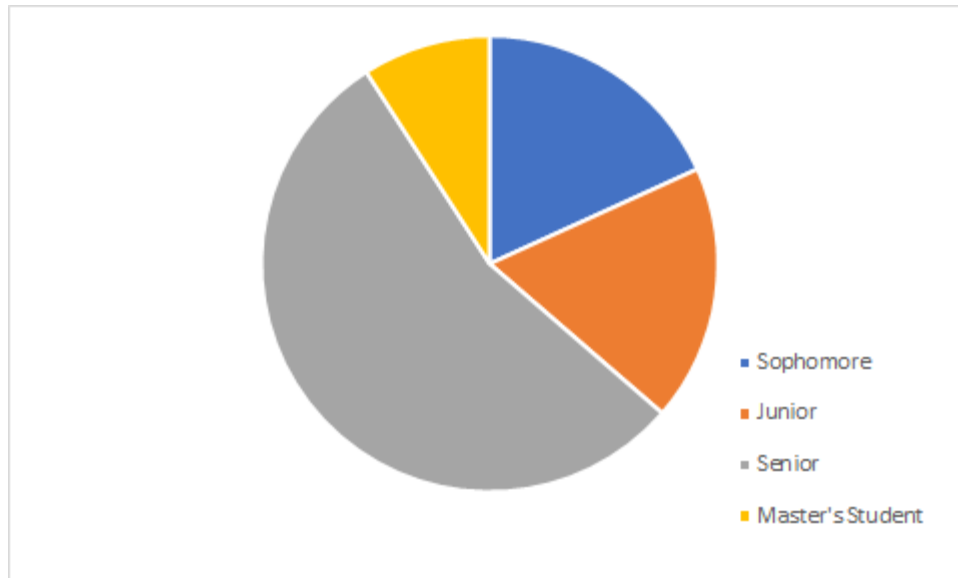


Figure 3: Class Standing of Respondents

Most respondents had attended SWE events of some kind outside of their own collegiate section meetings, with the most commonly attended event being the SWE Annual Conference as shown in Table 1.

Table 1: Event Attendance

Event	Number Attending
SWE Annual Conference	9
WE Local Conference	5
Meetings or events held by a professional section of SWE	4

Students were asked to rate the importance of various functions of a faculty advisor, on a scale of 1 to 5, where 1 meant the item was not important and 5 meant it was very important. Each of the items in the question had an average score greater than 3, indicating that on average, students felt all items were of at least moderate importance. Full details are shown in Table 2.

Table 2: Importance of Different Aspects of Advising by Average Rating

Aspect of the Advising Role	Average Rating	Standard Deviation

Providing continuity to the section over a long period of time	4.636	0.674
Providing a communication channel between the university and the collegiate section	4.545	0.934
Mentoring students on general leadership topics	4.455	0.820
Mentoring students on SWE leadership topics	4.364	0.809
Ensuring that students understand SWE as an organization	4.273	0.905
Encouraging students to attend the SWE Annual Conference	4.273	1.009
Ensuring that students understand university policies and procedures for student organizations	4.182	0.982
Helping students organize outreach events	4.182	0.982
Helping students find speakers for section meetings	4.182	1.079
Accompanying students to the SWE Annual Conference	4.091	1.446
Writing recommendations for students for SWE awards	3.909	1.136
Writing recommendations for students for SWE scholarships	3.909	1.136
Providing a communication channel between SWE and the collegiate section	3.818	1.250
Encouraging students to attend WE Local conferences	3.636	1.206
Accompanying students to WE Local conferences	3.364	1.286
Helping students with fundraising ideas	3.364	1.433

Overall, students felt that the most important aspect of the advisor’s job was to provide continuity over a long period of time, and to provide a communication channel with the university. Mentoring also rated highly as something that members wanted from their advisors. Tasks such as helping students organize events, accompanying them to conferences, and writing recommendation letters were not rated as highly.

When asked how involved their advisors were, and how well they met their needs, there was a correlation between the degree of involvement of the advisor and students’ feelings that their needs were met. Answers to these two questions are shown in Table 3, below; students seemingly want to have their faculty advisors involved.

Table 3: Advisor Involvement and Student Satisfaction

		How well does your faculty advisor meet your needs?				
		5 - Meets needs very well	4	3	2	1 - Meets needs poorly or not at all
How actively does your faculty advisor engage with the collegiate section?	Very involved	4	1			
	Somewhat involved			1		1
	Not very involved		1			
	Not at all involved					2
	Do not know		1			

When asked about communication methods, students indicated that the most frequent method of communication was email, with in-person meetings also occurring. Texting was also used, with phone calls and videoconferencing being the least often used. Detailed results are shown in Table 4.

Table 4: Communication Methods

Communication Method	Occurrence
E-mail contact	10
In person, at meetings with him/her/them and just the section's officers or leadership team	6
In person, at general meetings of the whole section membership	5
Texting (including group texts)	2
Video conferencing	1
Phone calls	1

Discussion

While the conclusions that can be drawn are somewhat limited until more data is collected, it is clear that students want to have their faculty advisors engaged with their sections. SWE collegiate section bylaws indicate that “It is recommended, but not required, that the section have a faculty advisor” and “the selection of a faculty advisor is to be in compliance with the policies and procedures of the college/university”. While most universities do require a faculty advisor for their collegiate section. Faculty advisor is the liaison between the collegiate section and the university. They serve as the collegiate members’ link with their university and its policies and procedures.

There is a correlation between the degree to which they are engaged and students’ satisfaction with them, and students rate the importance of all aspects listed of the advising role as being at least somewhat important. However, there are a few differences between the views of students and those of faculty. When faculty advisors were surveyed [2], their survey included almost identical aspects of the advising role. For those items (15 out of 16) that are common between the two surveys, a comparison is shown in Figure 4.

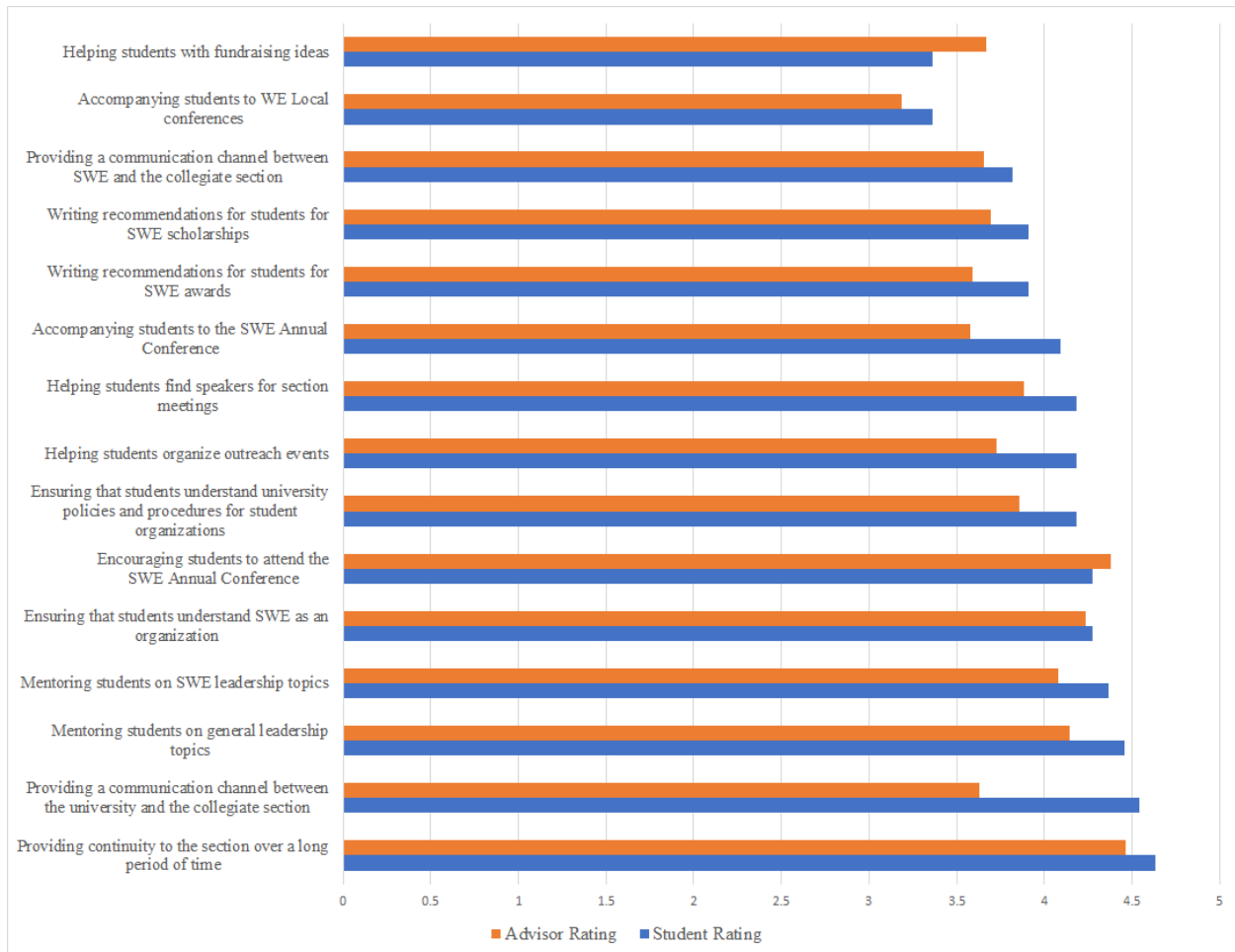


Figure 4: Comparison of Student and Advisor Views on Aspects of Advising Role

It can be seen that there are some differences between the two groups' views; however, in part due to the small number of student responses, a two-sample T-test reveals only one statistically significant difference. In general, student ratings of various aspects are higher than those of faculty. However, there are two items where the advisors rated an item more highly: helping students with fundraising ideas, and encouraging students to attend the SWE Annual Conference. There are also some items where the difference is greater between the "typical" gap between the advisor and student rating; the most notable of these differences, and the only one that is statistically significant, is in providing a communication channel between the university and the collegiate section. Students rated that area very highly. This gap might be due to the mix of faculty advisors and SWE counselors in the first survey, with SWE counselors not necessarily being faculty at the university; alternatively, it may indicate that advisors overestimate students' comfort communicating with different people and offices within the university. Similarly, students find it more important that faculty advisors accompany students to the SWE Annual Conference than do the advisors, which could indicate that students find the large conference (attendance of 16,500+ in 2019) intimidating, and want to have some kind of guidance in navigating it. This is particularly notable since students did not find it important that advisors

encourage them to attend the conference, contrary to the advisors' responses. This difference could also be attributed to the fact that those students who have answered the survey at this point have, for the most part, attended the conference. As further data is gathered, this may be clarified; in addition, with more responses, statistical tests will become more meaningful and provide a greater degree of confidence in the results.

Conclusion

While further data is needed, and is being collected, the information that is being presented in this Work in Progress indicates that, while there is broad agreement on many aspects of a SWE faculty advisor's role, there are some differences between what students want from their faculty advisors and what their advisors think they need to do. As further data is collected, these differences will be further clarified, with a greater degree of statistical confidence in the results. The results of this study and the previous one [2] can be used to encourage conversations between students and faculty, in order to help the faculty to focus their efforts on areas where students need their help, as well as to communicate areas where they feel they can benefit students.

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