



FLEET mentoring survey 2020 analysis

Overview

There are factors that make it difficult to extract too much meaning from this data. First, the response rate was too low. Second, it is hard to quantify answers to certain questions because of how they are phrased. Some of the questions might be better constructed as a Likert or Likert-like scale. There was insufficient depth to the open questions to enable effective qualitative assessment.

Taking these limitations into consideration, the following analysis is suggested. There is a mixed response to the value of the mentoring scheme, but it impossible to determine whether the value (or lack of it) is because of the structure of the scheme itself, the motivation of the mentor or mentee, the training (which is part of the scheme structure, I guess), or some other variable. There is some consistency, however, across mentor and mentee responses about the difficulty in building genuine and therefore effective mentor-mentee relationships. The concern here is strongest among the mentors.

The question about the benefits of the relationship provided the most meaningful data, though again it can only be considered anecdotal because of the low response rate and lack of depth to the answers. The anecdotal evidence suggests, however, that there are more positives for the mentee from their relationship than negatives. The caveat here is that there was no question specifically about the negatives of the relationship. The final question enabled this to some extent, but it was left open and did not specifically ask mentees to describe what did not work in their relationship with their mentor.

I have not included answers to the first three responses, although they were used to determine the data in Table 1. Each question first analyses the mentee responses then the mentor responses. I include at the end ideas to integrate into future evaluations of the scheme.

How many times have you and your mentor/mentee met in 2020?

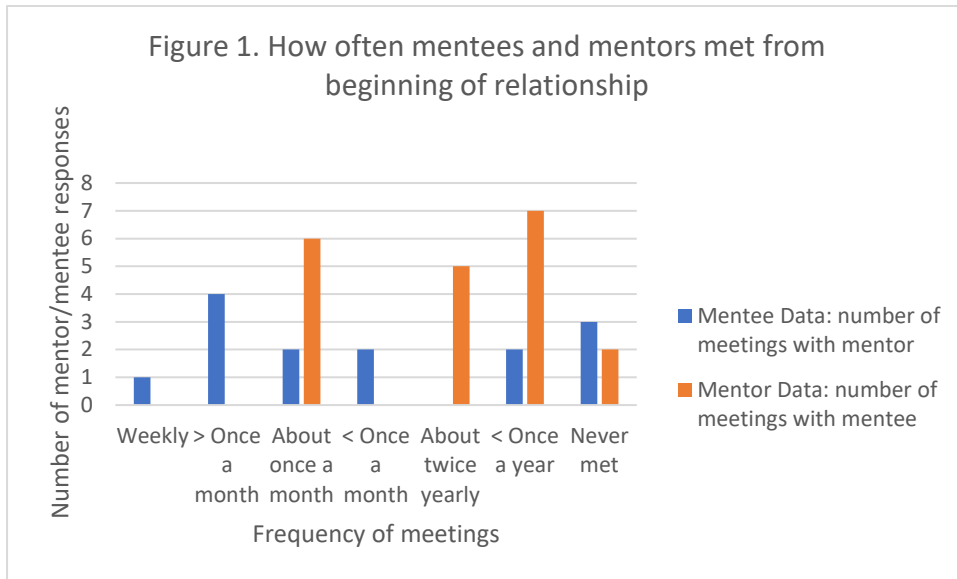
Table 1 Overview of mentor, mentee meetings

How often mentor/mentee met	Mentee Data: number of meetings with their mentor	Mentor Data: number of meeting with mentee*
Weekly	1	0
> Once a month	4	0
About once a month	2	6
< Once a month	2	0
About twice a year	0	5
< Once a year	2	7
Never met	3	2

* There were 16 mentor respondents to the survey. Some mentors had more than one mentee. The data includes each mentee. For those with more than one mentee, some met each of their mentees at different frequencies.



Or graphically



Is there anything that is preventing you from meeting with your mentor?

Table 2. Barriers to mentors and mentees meeting

Barrier identified by mentee	Numbers of mentee responses (N=14)	Number of mentor responses (N=16)
COVID	4*	2
Mentors too busy	2**	3
No barriers	7	7
Lack of mentee interest		1
Not enough to talk about		1

* Of the respondents who said there was no barriers, one noted Zoom meetings worked well, another said scheduling a meeting was easy.

** It was unclear with one response whether the mentor or mentee was too busy to meet.

There were similar barriers to meetings noted by mentors and mentees – where barriers were perceived. Most mentors and mentees considered there were no barriers to meeting.

Do you have a topic you discuss?

The data from the mentee responses to this question is too unclear to extract any meaning from. I.e, where a topic was pre-determined, it is impossible to determine if the mentor or mentee decided on a pre-determined topic to discuss or the mentee. It is difficult to extract any meaning from having or not having a pre-determined topic – eg does a pre-determined topic benefit the mentee or mentor/mentee relationship in any way? I don't think you can include data from this question in the report.

But see next question below, which could imply that establishing some relevant topics might be beneficial – or at least it could be worth testing this as an idea. [I am not sure what research data exists on this that might provide guidance here.]



In the mentor data, while the responses were more explicit in that the number of mentors that said they do have specific topics they discuss was 4. The number of mentors who did not have topics was 6. The number of mentors who said it was dependant on the meeting was 3. What this means relative to the objectives is still unclear. That is, is having a topic to discuss of benefit to the mentee (or mentor)? What is that benefit? These factors remain unclear.

Do you need more guidance about what to talk about with your mentor?

Among mentors and mentees there was indication that for most, some form of formal guidance or training could benefit the relationship.

8 of 14 mentee responses indicate it would be useful to have more guidance on what to talk about with their mentor.

8 of the 16 mentors suggested greater guidance would be beneficial. Only 5 said they did not require more guidance.

This suggests some mentor/mentee training could be of benefit and reflects concerns noted in the last two questions. (Such training may already occur, which suggests there might be some other problem here. I don't have the background knowledge/data to make a call here.)

Benefits of the mentor/mentee relationship

This is one of the more useful questions re: being able to extract meaning data from mentor and mentee responses. The themes to emerge from mentor and mentee, however, differed starkly, which to some extent should be expected.

The following five themes emerged from mentee responses with some quotes on brackets:

- **A social connection**, eg someone to talk to. ("Nice to talk to people in science outside of my research team.")
- **Trust**: discretion re: personal stuff, in mentor advice. ("Mainly, having someone you can go to when you cannot go to your supervisor about the same topic.")
- **Sharing experiences**. ("We can understand each other and share experiences.")
- **Balance and perspective**: careers, research, life beyond their own echo chamber. ("It's good to have someone to talk to who can indicate whether research-related things I am going through are normal or not." "I have got acquainted with a person that I can completely trust, who has enormous experience to share, and has a balanced outlook on things.")
- **Support**: feedback, writing papers/grants, etc. ("I can gain perspective about certain issues such as paper feedback, or grant writing, or job applications.")
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The following themes emerged from the mentor responses

- **Two-way learning**. One response noted they gained insight into student uncertainties about the current environment, but it was unclear how this was of benefit to the mentor. What the learning was for both mentor and mentee and how that was of benefit was also unknown.
- **The good Samaritan**. There was some sentiment from mentors that they felt good knowing they had helped their mentee.
- **Forced relationship***. While there were three responses that either explicitly or implicitly stated they got no benefit from the relationship, there was considerable concern from six of the mentors that their relationships felt forced, and they struggled to establish genuine and therefore effective relationships.

*This theme was expanded on in the last survey question and I have integrated the responses from the two questions here.



Other comments

Again there is a contrast between the mentor and mentee responses. Of the 8 mentee responses there appears to be some conflicting meaning or lack of strong/consistent themes as outlined below. The mentor responses were centred around the issue of establishing effective relationships and a perceived need for more guidance and structure to mentor-mentee program.

Mentee responses: Two respondents suggested a more active mentor-mentee relationship would be helpful. One of these respondents had only met their mentor once, the other not at all in 2020, though the latter also noted they had not needed assistance yet as one reason for not meeting with the mentor.

Four respondents simply commented that the scheme worked well for them even though some had only met their mentor once, some twice. Once perceived no barriers to their meeting, the others thought COVID and work or their schedules constrained meetings.

One mentee response reflected the concern of the mentors. They felt the mentor program failed. Their reason was that the “mentor relationship needs to evolve on its own, trying to force it like this isn't going to be effective.” But, this respondent had only met up with their mentor once in 2020 and thought COVID was a barrier that prevented this from happening.

In contrast, two other responses thought the program worked well and should continue.

Mentor responses

There was some positive sentiment about the program, but as reflected in the previous question, the theme to emerge in this set of responses was the difficulty in building relationships, trying to ensure they are genuine rather than ‘forced’.

For example,

Getting relationships kickstarted is tough. I don't know how to manufacture them, aside from just keeping being encouraging.

I think it's really hard to artificially create a mentorship relationship. They always seem to just happen.

The following responses implies the program itself is somewhat artificial

I know it's hard, but it would be good to make it more 'genuine' and less artificial...

Workshops and training that helped build relationships and provide greater structure and understanding of mentor and mentee expectations were noted as ways to improve the program. One respondent (below) thought the training they received in a different mentor program worked well.

Other programs I mentor for are more detailed and provide a 'package' for both the mentees and mentors as well as an online induction seminar on how to be a mentor or a mentee. This was actually quite useful.

Further research

There is scope to understand in greater depth the struggle mentors and mentees had building and effective relationship. What do they mean by “forced” and what factors underpinned this? What do mentors and mentees consider is an effective relationship – what attributes define this? What do we need to understand here to help improve this? How do we integrate this into some form of training to improve this situation?

Given the low rate of mentor-mentee meeting, it will be interesting to see how well the mentee themes hold up with more rigorous data. That is, these themes emerged when only half the mentees met with their mentors each month or more.



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When mentors say they are both learning. What are they learning and how is this of benefit to them?

Some more in-depth qualitative analysis could help understand these questions in more depth.

For report

There is still work to be done on refining the mentor program. Data from a pilot survey suggested more formal guidance and training for mentors and mentees might be of benefit to build more genuine and effective relationships and improve the intended outcomes such as [expanding the mentee skill set, support to help take that next step in their career, or constructive feedback – Errol, you can insert here]

There were, however, encouraging outcomes with mentees typically indicating their mentor relationship enabled a distinct social connection, often outside the tightly bonded network of the physics discipline, with whom they could share experiences. Their mentor provided balance and perspective on their career, problems in their own research and on bigger picture issues affecting their lives.

Useful quotes

(ECR mentee): “I have grown professionally, I have got acquainted with a person that I can completely trust, who has enormous experience to share, and has a balanced outlook on things. She is also very frank, and she appreciates my small victories.”

(PhD mentee): It's good to have someone to talk to who can indicate whether research-related things I am going through are normal or not.

(AI mentor): It is good to share experiences. It is a good support network - particularly this year.