

Lessons of Feedback in Higher Education in Sweden

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Abstract—Lessons learned in the feedback process are a two-sided coin that ultimately guide the PhD candidate towards becoming an independent researcher as well as educating “reader/docents” in their role as supervisor. Building on a brief literature review, observations from 14 interviewed PhD candidates were reflected upon and these are the suggested lessons learned. The study’s preliminary findings suggest that feedback is most productive when it is organized, systematic, and tends to offer guidance rather than direct instruction. Perhaps of greatest significance is the need to have consistent dialogue about the feedback’s form and content between student and supervisor(s).

Index Terms—feedback, higher education, PhD education, supervision, pedagogy.

I. INTRODUCTION

THIS paper presents an investigation of lessons that can be learned regarding feedback in higher education, focusing on research produced by PhD candidates. Knowledge of the manner in which PhD candidates receive, interpret and use feedback is of significance to both current and aspiring supervisors. The paper thus aims to provide observations and implementable reflections in the feedback process between supervisors and PhD candidates.

The findings are based on 14 interviews from PhD candidates at five different departments from universities in Sweden. Each of five investigators (cf. authors) has interviewed two or three PhD candidates for a period of 30–45 minutes each. The interviews were conducted during March 2018. In principal, seven questions were asked to the interviewees (see Appendix). We have tried to allow as free thoughts and discussions as possible during the interviews. The questions thematically organized the interviews. The structure of the paper is as follows: we first provide literature review on the topic of feedback in higher education. Further, we provide narrations of each of the

interviews and conclude with a brief summation of the key points, one for each interview set. The paper ends with a discussion of general conclusions drawn from the interviews.

II. LITERATURE REVIEW

Feedback is a fundamental element in the research process. Lack of feedback can compromise the intended learning outputs, research quality, and its direction. Efficient feedback should clarify what a good performance is, considering the intended learning outputs, at the same time facilitate self-reflection in learning.

Many authors have highlighted the need for improved feedback practices. For example, literature [1] points to the need to guide the students in their learning process and to promote feedback as a process of dialogue. Feedback should deliver quality information about their learning process and improve students’ self-esteem [2].

Feedback effectiveness relates to the type and way in which it is provided [3]. Four levels of feedback were identified: feedback about the task, the processing of the task, self-regulation, and about the self as a person. Feedback about self as a person is the least effective, whilst the other three are more powerful to generate mastery of tasks.

One important aim of doctoral education concerns training students to become independent researchers. In [4] written feedback, thus emphasizing its role in academia, is evaluated. It was concluded that expressive feedback is important on top of reflective and directive ones. In [5] it was emphasized that written feedback forms an important aspect of the students’ assessment. The quality, by means of rubrics and templates for open comments to point out the benefits and challenges of written feedback, especially as a supervisor, was examined. Also, the means of support for teachers that were found necessary to foster written feedback in formative assessment was outlined. Feedback processes for students are more effective when it is [6]:

- focused on the task, specific, detailed, clear, corrective in such a way that learners are guided to give the right answer,
- specific, providing insights into the desired behavior, in a dialogue in which good relations exist between receivers and providers
- helping to become familiar with, and close, the gap between an actual and desired performance
- task/goal-directed, focused on the learning process, specific, in time and frequent, positive, unbiased, non-judging and encouraging dialogue.

Research suggests that understanding cultural differences

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while also engaging students will reduce mismatches between student's expectations and supervisors' feedback process. Further, students may also experience emotional responses to feedback during their PhD journey and supervisors must be aware of this and prepare the supervision appropriately [7]. To conclude we refer to [8], who rephrased [9], "in that the most effective feedback eventually makes the feedback provider unnecessary".

III. DATA PRESENTATION

Below we gather the 14 interviews in five interview sets (viz. Sets 1–5). Each set is corresponding the interviews conducted by the same interviewer with students from the same department. Each candidate was interviewed during approximately 30 to 45 min, using the questions listed in the Appendix for structuring and organizing the interviews. Hence, we have tried to allow as free thoughts as possible during the interviews. We have given information about the sex of the interviewees, as well as if they have a Swedish or non-Swedish background, to be able to study differences in the feedback process related to those terms.

A. Interview Set 1

Three PhD candidates from the Department of Construction Sciences at the Faculty of Engineering at Lund University were interviewed. All candidates are Swedish males, two of them was in the latter part of their studies and one candidate was in the middle of his studies.

There are several general conclusions that can be drawn from the interviews presented above. The feedback that the students have received has mostly been in written form in the format of comments on and/or corrections of written drafts of scientific papers. They have not received any feedback regarding the courses they taken. All interviewees also point out they would like well-planned feedback in terms of guiding them in their progress, rather than correcting drafts. They all say that they would like to have periodic meetings, reoccurring between once a month to once a week. Two of the interviewees highlight that they would like to have more discussions of their research in relation to the research field as a whole.

B. Interview Set 2

Three doctoral students from the Department of Biomedical Engineering at the Faculty of Engineering at Lund University were interviewed. All candidates being males. One is Swedish in the last year of study, one is non-Swedish in the first year of the study, and one being non-Swedish in his final year.

In general, the students receive feedback orally and when the feedback is written it is in relation to writing technical articles. Although the feedback does not appear to be planned or structured, the students have a positive impression about the feedback that they receive. The lack of structure and planning prevents the students from saying how frequent they receive feedback from their supervisors. The students are aware of feedback's importance in academia and advise incoming supervisors to provide frequent feedback in form of suggestions, while avoiding being overly directive. They emphasized the relevancy of providing feedback particularly during the first part of the doctoral studies as it is during this stage that the student has

a greater need to know about regulations and how research activities are developed. One of the students advocates more directive feedback, and relates its absence in the Swedish context to cultural differences.

C. Interview Set 3

Interviews were conducted with students at the Water Resources Engineering Department at the Faculty of Engineering at Lund University. One interviewee was a Swedish male in his final year, one being a non-Swedish female in her final year, and one being a non-Swedish male in the middle of his studies.

The respondents had consensus on the idea that negative feedback was never motivating and presented a challenge to the work. The students felt pressure if they received negative feedback from supervisors, which hindered their ability to learn via experience. The students highlighted the heightened expectations of their supervisor at early stages of research and writing. They mentioned that the supervisor emphasized the knowledge of the state of the art in the field and that there should be good literature review/references in initial drafts of the paper. They also stated that methodology ought to be clearly defined by the supervisor and he should try to reduce ambiguity as much as possible. The students further suggested that supervisors focus on parts of paper, rather than the full paper to provide for further quality assessment of the work. They also encourage the supervisor to be involved in the paper and expect guidance on developing conceptual tools and analysis, and less on grammar and writing style.

D. Interview Set 4

Interviews conducted with students in the research field of Design Studies at the Faculty of Engineering at Lund University. All interviewees being females: one being non-Swedish in the latter part of her studies, one non-Swedish in the middle of the studies, and one Swedish in the latter part.

It is easy to see that there are some clear similarities amongst these respondents. Firstly, all three students are female and they all receive largely oral feedback. Secondly, all students receive a variation of feedback frequency and type over time and there does not seem to be any direct discussion between the student and supervisors on their joint expectations on these issues. Thirdly, all three students are quite satisfied with the feedback tending toward more positive and guiding, rather than directive. However, in certain situations, there seems to be a requirement for less guidance and more direction when stuck and not knowing what to do. This seems to be solved from the supervisors' side, as they are responsible for adjusting the type of feedback and the frequency with which it is given.

E. Interview Set 5

Two students from Malmö University's Department of Urban Studies were interviewed. One candidate is a Swedish female that presented her doctoral thesis March 2018, and one non-Swedish male in the final year of study.

There are a few points of interest to note. First, the students both highlight the importance of strong relationships in providing a productive and perhaps "safe" feedback environment. They also point out the importance of help not just with the content and conceptual framing, but

with the writing and rhetoric of academic writing. This emphasis could perhaps relate to the fact that these students are writing book length manuscripts in which style matters a great deal. Lastly, they point to the challenges of inter/cross disciplinary supervisions and that in this context, the most effective supervisors and feedback tends to flow from supervisors that are willing to destabilize their own academic field for the student's work. As interviewee A notes, though, the supervisor themselves gains new perspectives as the "journey" unfolds and potentially can improve their own scholarship.

IV. DISCUSSION AND CONCLUSION

Conclusively students at all levels of PhD study—from newcomers to near to graduation—prefer to have a more systematic delivery of feedback from their supervisors. Both in terms of the manner of dissemination—regularly scheduled meetings—to the content and substance of the feedback. Improvised comments or those that do not intersect with the student's broader research trajectory or the field at large appear to be less useful. Treating each manuscript draft as less a discrete entity and more as part of a larger body of work would make feedback more productive, but require more communication between supervisors and closer attention paid to the student's development.

At the same time, particular forms of feedback seem most desirable according to the students, namely, feedback that guides rather than instructs. The preference for guidance versus instruction seems to depend on where in the doctoral career the student finds themselves. Too much exploratory guidance at the beginning can, it appears, be off-putting, confusing, or overly ambiguous, while too much instructional feedback later on in the process can be detrimental to the student's growth and academic independence. This raises some important questions that merit further investigation. For instance, how and when should the supervisor(s) begin to make the transition from more direct instructional feedback to the more speculative and exploratory feedback that gives the student room to roam and grow? And how and where does a supervisor find this balance—assuming there is one to be found—as the supervision unfolds? And what of the role of different supervisors? Should certain supervisors adopt certain feedback roles? If so, who and in what way should these distribution of responsibility be made? As above, consistent and open communication between supervising teams, and perhaps too, the student, is of crucial importance in making these feedback decisions.

The preceding observations suggest that it might even be advisable for supervisors to seek feedback from the student regarding the utility and form of the feedback offered. Given the seeming gap between the supervisors and the students regarding feedback type, frequency, and form, we might follow [6] suggesting that there is a need to maintain a consistent dialogue between student and supervisors to discuss the research performance and the supervision performance. The emphasis on dialogue and communication indicates that feedback exists in a wider milieu of relationships, expectations, and desires on the student and the faculty members. There is not, therefore, a one-size-fits-

all model of feedback. This is true whether we debate about the existence of models across disciplines, but also regarding individual student needs, backgrounds, and personalities. Given the importance of the "human dimension" in feedback, relationships of trust, openness, and transparency must be cultivated for feedback to be most productive and useful. Structured discussions regarding feedback's form, focus and content would thus be beneficial to all parties as the supervision unfolds. It may therefore be advisable to make feedback about feedback (*meta-feedback*) part of the yearly project plan discussion, or in the Individual Study Plan (ISP) update, in which student and supervisors review both what has occurred and what is needed as the student-supervisor relationship continues to evolve.

APPENDIX

The following questions were asked to the interviewees:

1. If you would need to characterize in general the feedback that you receive, how would you define it?
 - a. Written feedback followed by face-to-face meetings?
 - b. Only or largely oral
 - c. Only or largely written
2. Do you believe that the feedback you receive is well planned, or is it just random comments?
3. Did you have expectations about your "ideal" kind of feedback? What might those have been? Did you ever bring these to the attention of your supervisor? Why?
4. Did feedback you received tend towards "telling you what to do" or "offering guidance"? Which did you find most helpful? Why?
5. During the course of your PhD how frequent was feedback, how many of those would you say were negative/positive (in your perception)? Was there any time that you felt it was bit harsh for feedback?
6. Would you like to have more/less feedback, why?
7. Provide two suggestions that you would give to new supervisors about the most helpful type of feedback to give to their supervisees?
 - a. Give written and oral feedback frequently
 - b. Make positive and constructive comments alongside critics
 - c. Give suggestions but not be too directive.

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