rEFLections
July 2012 Vol. 15

What Happens in PhD Supervision? Types and Frequency of Written Feedbacks

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Abstract

Feedback to students, how to give it and how it is received, has been the focus of studies for some decades. However, the specialised field of giving feedback to postgraduate students and particularly in electronic form, has not received as much attention. The present study is based on feedback given to four candidates on three iterations of their PhD proposals. It examines the types and frequency of the different language functions the supervisor uses. The results show that there is significant variation in the types and range of feedback used. We discuss these results and their implications.

Keywords: Supervision, Communication strategies, Feedback, Politeness, Writing

1. Introduction

Feedback is a key factor in educational success in all areas of study and the doctoral level is no exception. The amount and quality of feedback in PhD supervision has been shown to be a crucial element in the collaboration between student and supervisor (Delamont, Atkinson, & Parry, 1997; Taylor & Beasley, 2005). However, it is also an area that has not been widely investigated. In the words of Knowles: 'It is surprising that such an important and routine exchange of information has received so little information, and yet it may be the main gauge by which both parties measure whether the supervision as a whole is successful or not' (1999, p. 113). A decade on, there continues to be a dearth of research on the feedback provided by supervisors of graduate work. A starting point to making connections between feedback and later success is to identify what types of feedback are routinely given in PhD supervision. Below we will briefly discuss what the literature suggests are the characteristics of successful supervision and the role of feedback in this area, before describing our own study.

2. Literature Review

2.1 The Characteristics of Good Supervision

It is clear now that the assumption that "If one can do research then one presumably can supervise it" (Rudd, 1985, pp. 79 - 80) does not hold true. Research since the late 1980s

and especially that conducted more recently has emphasised the collaborative and multidimensional nature of the supervision process. Supervisors are not merely experts at the technical level but also need to be able to guide and support learners in understanding what is required of them to become members of their scientific community. Taylor and Beasley (2005, p. 3) suggested that good supervision involves a range of different skills and at the practical level needs to enable candidates to initiate and plan a research project, acquire the research skills to undertake it and gain adequate access to resources, complete it on time, produce a high-quality thesis, to be successful in examination, to disseminate the results, and lay the basis for their future career. As is clear from the above, supervision encompasses but is also broader than the actual topic of the candidate's study. It involves the development of subject knowledge, but also practical skills and the metacognitive ability to manage the study process.

Another characteristic of PhD supervision, at least in the social sciences, is that it is often a collaborative process. Acker, Hill and Black (1994) investigated a large number of PhD meetings in the social sciences and found that they were of two types: those where the supervisor mainly directed the students' work and those where the project was more a negotiated effort, where decision-making was shared and students took a more equal role to that of the supervisor. The negotiated type was found to be considerably more common, although all meetings they investigated included elements of both the negotiated and the directed type. It is likely that the negotiated nature of the PhD meeting can be both a source of inspiration but also a challenge to students, especially if they are not used to this type of working. In practice, mismatches about the expectations of supervision and the student's role can and do lead to problems and even withdrawal, either as a result of different previous educational experiences or cultural expectations (Aspland, 1999). An Australian report on the success of PhD supervision in that country (Sinclair, 2005) found that the role of feedback was crucial in helping students to 'demystify' the PhD process and understand their own role in it. It is the area of feedback we now turn our attention to.

Related to, but not the same as, supervision is mentoring. In one reference (Randall & Thornton, 2001, p. 14) the term is said to have "connotations ... of a warmth, experience and sympathetic guidance, ... connotations [which] probably account for its success as a term." However, in the literature it usually refers to professional rather than academic guidance.

2.2 The Characteristics of Feedback in Supervision

Sinclair (2005), in a national study conducted in Australia, found that "frequent, timely and collaborative intervention by the supervisor" (p. I) was required for PhD supervision to be successful, and had a direct effect on PhD completion. This makes it all the more surprising that "There have been no attempts to date to document the diverse and

productive approaches supervisors use in their feedback practices, nor of supervisors' metacognitive awareness of their strategies" (Knowles, 1999, p. 124).

Despite a lack of a comprehensive inventory of such 'feedback practices', some studies have identified several characteristics of feedback in PhD supervision. Taylor and Beasley (2005, p. 101) argue that the purposes of feedback are to help the students learn what the standards are in the field, to improve their skills, to deepen their understanding, and to give them a sense of achievement. Others (e.g. Delamont et al., 1997), highlight the importance of helping students to develop their own judgement so that they are able to monitor their own progress.

Whatever the aims of the feedback, it needs to be delivered regularly (Aspland, Edwards, O'Leary, & Ryan, 1999), and needs to be 'purposive, timely, in an appropriate form, conducted in an appropriate way and with due regard for the sensibilities of the candidate' (Taylor & Beasley, 2005). This focus on the way in which feedback is delivered is a recurring theme: 'criticism is [...] more likely to be well received (and constructively used) if it is clearly made in the context of respect and interest' (Connell, 1985, p. 41). The delivery method relates to the affective aspect of the feedback (and learning and teaching in general). Randall and Thornton (2001) address both the affective and factual aspects of feedback (although they refer mainly to teacher-teacher feedback). They believe that creating an appropriate atmosphere is fundamental if advice is to be " internalised ... and ... put into practice" (p. 87). They also note that addressing the listener's/reader's feelings is an important part of an advice session. Indirectly related to this, evidence for the importance of students' perceptions was investigated in a qualitative study by Kumar and Stracke (2007), who researched the written referential, directive and expressive forms of feedback offered by a supervisor on a PhD thesis. The expressive feedback was experienced by the student to be the most beneficial. Of course, when advice is given via the computer, attention to feelings is less easy to address.

Doing all of the above while 'providing feedback which combines thoroughness and sensitivity, and which is necessarily critical, analytical and evaluative, is a difficult balancing act' (Knowles, 1999, p. 112). How this is done in practice is the aim of this study, because despite the many recommendations made in the literature, it is unclear to what extent supervisors display these characteristics in their interaction with students, or to what extent students experience these characteristics in the supervision.

Powers (1994, reported in Dong 1998) compared the kinds of help supervisors thought they gave their students to the type of help the students perceived they had received and found discrepancies, especially in the areas of goals setting and in using the appropriate tone. In a similar study, Dong (1998) also investigated (amongst others) the perceptions of the types of support given by supervisors and their students. She too found a difference in the (perception of the) frequency of the support given between

students and supervisors as shown below. Interestingly this mismatch applied to all variables (although it was only statistically significant in four of them). She argues that perhaps the support given by their supervisors may not always have been recognised by the students, especially if this was given in informal settings, or as a casual enquiry. She argues further that the fact 'that students estimated advisors' assistance to be less frequent than advisors' own estimates appears to reflect a genuinely perceived need for more help from advisors than advisees felt they were receiving' (p. 386) but she did not investigate this further.

Further research is needed to investigate not only the perceived amount of support but also students' satisfaction with the support. In addition, the feedback types included in Dong's study leave out the less mechanical aspects of the support, such as social and motivational comments. In our study, we included these elements and in addition aimed to report on data of the actual feedback given, not the perceptions of the feedback.

3. Research Questions

Despite the general consensus on the nature of PhD supervision, where critical and analytical advice and emotional and affective support should be balanced to train future researchers, little research exists as to the actual discourse or the type of advice given to PhD students. This study, therefore, attempts to fill the gap by observing types of feedback that occur in online supervision. Specifically, this study intends to answer the following question:

1. What are the types and frequency of feedback given in the PhD supervision?
2. How are affective and factual forms of feedback given and balanced?

4. Methodology

This study combines elements of previous work on academic feedback but takes a fresh approach in that it is based on electronic communication from a supervisor to his students. The study aimed to investigate the type and frequency of the feedback given based on actual samples of feedback, rather than the more subjective approach of relying on students' and supervisors' recollections and perceptions. To do this, samples of feedback were selected over a period of three months by one of the authors who was the supervisor in question. These samples were then subjected to an analysis by the other authors. Below we describe the development of a framework for coding the feedback samples, as well as the participants, the context and the procedures for collecting and analysing the samples.

4.1 Participants and Context

The data derived from the interaction between a supervisor (one of the authors of this paper) and four of his students. The students were all writing their proposals for submission to their departments by the end of their first year as PhD students, in order

to be given the green light to commence their actual studies. All four students were between 25-35 years old, three of them were female, and one of them male. All were advanced L2 speakers of English (the language of the interaction). At the time of the study they were enrolled in four different universities in three different countries (two in Malaysia, one in Turkey and one in New Zealand).

The supervision took place online through a combination of synchronous communication (using Skype and sometimes instant messaging) and asynchronous communication using email and through comments inside the documents the students submitted for feedback. The supervisor and students did not meet face-to-face, apart from two brief social meetings with two of the students at conferences.

4.2 Data Collection and Analysis

It was decided to analyse the feedback given during three feedback cycles. By cycles we mean all the suggestions made on one substantially different version of a proposal document. This includes subsequent questions and answers between the student and the supervisor as well as minor additions and changes.

Completing the feedback cycles took approximately three months. The data took the form of emails, written comments, and text chat transcripts. Skype conversations were summarised by the supervisor to provide background information about the interaction, but were not analysed for feedback.

The data were then passed on to the evaluating researcher for analysis. A total of 279 comments from four students were analysed, with a range of 40 to 91 instances of supervisor feedback from each student. This phase of the analysis involved the identification of all the feedback comments from the supervisor and the application of the framework to the data.

4.3 Construction of an Evaluative Framework

The type of research reported in the literature review above is interesting but it is unclear what its implications are without knowing what type and amount of support supervisors actually give to their students. In order to investigate this, we adopted Thornbury's (2005) classification along with one conventional way of analysing discourse is by its function, as pioneered by Halliday some decades ago (Halliday, 1975). The following shows a classification by Thornbury (2005):

1. Referring (in which information is conveyed or solicited)
2. Expressing feelings (where personal emotions are conveyed)
3. Regulating (which aims to influence people)
4. Interacting (where social relations are the aim)
5. Playing (which uses language in an imaginative way)

Although Thornbury's categorisation offers a top-down approach to data analysis, a bottom-up approach for our data revealed two emerging categorisations specifically applicable in this type of supervision discourse. Therefore, based on the existing categorisation, the two new categories were included for analysis and discourse characters that did not appear in the data were removed for the analytical framework in this study.

On analysing a sample of the feedback episodes, it became clear that two additional categories had to be included: 'clarifying' and 'reinforcing'. Since research proposals require a clear and logical presentation of one's study, clarification of ideas and their logical presentation were frequent issues for discussion. In addition, since PhD supervision implies not only directing students to follow comments but also involves supporting students as independent researchers, supportive feedback on their work through compliments or reinforcements was an important aspect of the interaction. Therefore, the category 'reinforcing' was also examined in this study. As actual ' referring' (category 1) did not occur that often but generally involved informing instead, we decided to label it as 'informing'. All comments were thus categorised as: informing, feeling, regulating, interacting, clarifying, or reinforcing.

The first category of 'informing' intends to provide information, which potentially aims for an intended action on part of interlocutors. However, in this paper, 'informing' is limited to occasions conveying information. The following is an example:

Related to this, see also Flowerdew.

The second category, feeling, was operationalised simply as any comment that expresses a feeling, not directly related to a specific text item. An example of this is the comment below:

You seem to have made considerable progress since our last exchange.

Regulating was operationalised as any explicit attempt on the part of the supervisor to get the student to take a particular course of action. In a way the entire feedback process is about encouraging students to take certain actions but here regulating was seen more specifically as making a particular recommendation for steps the student should take. An example is:

I'd suggest you move this part to the introduction.

Interacting was operationalised as any comment not directly related to the content or topic of the supervision. An example is:

What do you think of the footnote to X's study in the journal you mention on page.... ? I'd be interested to hear your views on how relevant this is to your work.

Another type of feedback, not explicitly included in Thornbury's (2005) taxonomy, is 'seeking clarification', where the supervisor asks for more information or an explanation.

Is this a questionnaire that teachers respond to or is it the students' perceptions of the teacher?"

The last category that has emerged from the bottom-up approach is 'reinforcing', where supervisors support or encourage students by complimenting their work or progress. The following is an example in response to students' opinions for her research direction.

That would make your research stronger – that way you can make better comparisons.

Although some of the feedback episodes clearly fell into one of the available categories, in a few instances they straddled several categories. For example, comments like "Trust me, you don't want to reference Wikipedia in your thesis. There is tons of literature on international students in higher education which will provide you with a reference." can be both regulating and informing. By informing the student about the existence of all other relevant sources, the comments regulate learners not to use Wikipedia in a scholarly paper, thus can be considered as "regulating". This type of overlap is perhaps not surprising considering the nature of PhD supervision. Nevertheless, unless the statement directly and explicitly regulates learners at the same time by giving information, these instances can be quantitatively categorised as informing. That is, the analysis tried not to guess the speaker's (supervisor's) intention (whether the supervisor intended to influence the student), as this can never be ascertained from the feedback alone. However, in the case of informing where there was also an obvious attempt to regulate the student, this was counted as both regulating and informing.

Any items that were deemed to be ambiguous were discussed with the supervisor. In this way it was possible to resolve all problematic instances. A sample of 30 feedback comments was given to the third author, in order to establish ınterrater reliability. The c ategorisation by the third colleague was found to be identical except for 2 items, which were subsequently discussed and resolved.

5. Results

In order to examine the types and frequency of feedback given in the PhD supervision, first we established the frequency and distribution of the feedback types discussed above. In general, feedback was categorised into one of six types such as regulating, informing, expressing feeling, interacting, clarifying, and reinforcing. Table 1 shows frequency and distribution of each feedback type for individual students.

Table 1 Feedback types and distributions (tokens)

	Cecil	Lily	Nina	Susie	Total (token)	Total (%)
Regulating	34	45	40	19	138	49.46
Informing	20	22	16	6	64	22.94
Feelings	8	4	5	2	19	6.81
Interacting	0	2	0	2	4	1.43
Clarifying	4	17	20	10	51	18.28
Reinforcing	0	1	1	1	3	1.08
Total	66	91	82	40	279	100

First, in order to examine frequent feedback types in general, comments from all students combined were examined. As Table 1 shows, regulating was the most frequent type of feedback, accounting for about 49% of all feedback episodes. Following this, informing and clarifying were frequent to a similar extent with a frequency of 23% and 18% respectively. However, expressing feelings, interacting, and reinforcing were rather less frequent, accounting for less than 10 percent of the total. The results indicate that feedback on research proposals mainly aims to direct (regulate) learners toward academic development by providing information and asking clarification of texts and ideas, rather than build relationships between supervisor and student through interacting.

Looking at the feedback given to individual students, the results were consistent with the findings above with regulating being the most common type of feedback for all students, followed by either informing or clarifying. The only divergence was that Cecil was given fewer clarification requests, but more of the feedback episodes involved the expression of feelings.

Additionally, further analysis was conducted to examine contexts and the extent of directness of the feedback in terms of regulating and seeking clarification, as these two can directly affect students' revisions.

Regulating seemed to appear in a context where students needed to make changes in terms of contents and wordings. The degree of directness seemed different depending on what aspect of the proposal the supervisor was focusing on. In general, regulatory feedback on content was presented indirectly with softening statements, whereas comments on wordings or writing conventions were rather direct. Below are examples of feedback on content:

> *If you think* it is particularly interesting to investigate writing in the Malaysian context, *you'll have to* explain to the reader why this is – why is it necessary to look at this particular context over others.
>
> You make a lot of claims here, *it would be good if you could* link these to previous research.
>
> *You may want to* rephrase this more positively – there is a lot of research on postgraduate writing in the sciences, then you review that literature.

As can be seen in the examples, phrases including "if you think", "it would be good if you could ...", "You may want to ..." mitigate the strong propositions of the speaker.

In addition to mitigating statements through softening phrases, a discourse level of softening strategies was also used. Sometimes, the supervisor explained a problem, and presented a relevant example, and then suggested a direction or correction, rather than merely pointing out the problem. For example, the supervisor stated the problem ("You first need to tell the reader that you intend to teach a special course on this topic"), and explained why it is a problem ("this is the first time we hear about it"). Then, he presents a solution ("Put it at the top"). He further provides the actual words needed like "this study investigates the effects of a specially designed course on XXX topic on YYY variables". Moreover, in presenting reasons, the author gave parallel examples to help the student understand the problem ("This will be very difficult to answer: it's like asking 'what kind of textbooks' should we use?").

However, some comments were rather direct without politeness strategies as in examples such as "move to literature review" and "now we are back to a general literature review – this should go into the 'academic writing' section above", and "Don't include abbreviations without explaining them". This direct speech normally occurred with feedback on writing conventions, although straightforward and brief comments were also given as in "This is [a] logically impossible Research Question".

There were two types of clarification requests: those asking students to clarify their wording or phrasing, and the other asking them to clarify issues related to methodology. First, as for phrases that were literally unclear, the supervisor directly indicated obscurity as in "I'm not sure what this means", or rephrased unclear parts by asking "do you mean to say, "they react differently to different teaching styles?". Also, the confusion of subtly different terms was indicated as well, e.g. "You are mixing up autonomy with self-direction, but they are not the same". Clarifications were also sought through asking students reflections such as "is this a questionnaire that teachers respond to or is it the students' perceptions of the teacher?" or "Too general. Contribute what? How?"

As a follow-up, the balance between affective and factual feedback was examined. Factual feedback is comprised of regulating, informing, and clarifying whereas affective feedback consists of expressing feelings, interacting, and reinforcing. Descriptively, feedback based on facts accounted for approximately 90 percent of all feedback episodes, whereas affective feedback occurred less than 10 percent of the time. These included comments such as "Happy supervisor=happy student, i.e. go for it!"

Nevertheless, sometimes affective and factual feedback was conveyed simultaneously. For example, affective apology was conveyed with information of what had been corrected as in "Sorry for correcting the odd language mistake – As an editor I can't help it!": the apology appears only by way of explaining that there are language mistakes throughout the document which have been corrected. Further, the supervisor criticises the student's choice of research question giving two reasons, one affective ("it's not very exciting"), the other relating to the predictability of the answer ("It is fine to include this question but [...] we know the answer already"). As such, affective feedback and factual feedback sometimes co-occurred.

6. Discussion

We aimed to examine the types and frequency of feedback given in the PhD supervision and additionally investigate the balance between affective and factual feedback. The descriptive analysis of the feedback token reveals that there were general consistent patterns in terms of the relative frequency of feedback type, with regulating the most frequent and interacting and reinforcing the least frequent type across all four students. However, when it comes to the number of tokens of each feedback type, the study showed a different total number of comments and types across individuals.

We feel that this requires further investigation next time. Are there sound academic reasons for the differences? Perhaps, for instance, some students really needed more detailed feedback than others. Alternatively, is there a more human reason? This could relate to time available to the supervisor on a particular day or to the unsubstantiated impression that some students were looking for more feedback than others. While regulating comments were more frequent in all cases, in other categories results were not so clear. Why, for instance, should one student (Susie) receive not only fewer comments overall but also far fewer 'informing' comments? Again, there could be a valid reason. If asked, Susie might say that she felt she always had sufficient feedback. Without evidence these thoughts remain conjectures. A surprise result was the very low percentage (less than 10%) which could be categorised as affective feedback.

We asked the supervisor (one of the present authors) to give his reactions to the results. Was he aware of spending more time on the work of one student than another? Was there anything in the writing of particular students that might have led him to take a different approach? Here is his response:

Although I actively try to adapt to each student's needs, I also do try to be consistent in terms of giving everyone my full attention. I was not at all aware that one student received less feedback than the others. Nor was I aware that the type of feedback was different. This came as a real surprise and it showed to me that a formal analysis is much more valuable than a subjective recollection. This will help me to monitor my feedback better in future.

One suggestion that comes to mind in response to the supervisor's reflections is that supervisors themselves could benefit from some supervision. At the risk of adding another layer to the research process, we wonder if occasional mentoring by an experienced, but neutral party might be useful

The intention of this research was to take a first step towards linking feedback with later results, our step being an examination of written feedback in one very specific context. We believed, with Sinclair (2005), that 'frequent, timely and collaborative intervention by the supervisor' (p. I) leads to successful supervision and we wanted to investigate what this intervention might be. More specifically, we built on the comment by Delamont, Atkinson and Parry (1997) and others about the need for students to develop their own judgement. We believe that the examples of the supervisor asking reflective questions are one way that the development of judgements can be achieved.

What, then, are the pedagogical implications for supervisors? Anyone who believes that feedback requires attention to the cognitive, organisational and affective aspects of research needs to have a means of ensuring that all these aspects are included. Without turning the marking exercise into something too mechanical, would it be possible to have a checklist on which a person noted the number of occasions on which affective feedback had been given? To make this manageable, it could include the number of occasions rather than the length of the comments.

7. Limitations of the Study and Recommendations for Further Study

On the other hand, we acknowledge the limitations of the procedures used in this analysis. First, the feedback is from only one supervisor, which limits generalization of the findings of the study. Nevertheless, this limitation could present some hints on how the same supervisor differently adjust his feedback type according to students' situation. The feedback, both in its parts and its whole, has a certain effect on the intended reader, but this effect is not measured here. We know that the effect of the feedback is often different from its intention but this has not been measured in our study. This leads to our first recommendation for further study. Since a third party can never be fully privy to the writer's intentions, the next step must be to recruit student participants who will be willing to record their responses to written feedback. Such a process is not without its stumbling blocks, starting with the recruitment process. How many students, already burdened with time constraints, would willingly spend time on an extra layer of work which had no spin-offs for them?

Less time consuming, but more theoretical, would be further analysis of the data itself. We could investigate, for example, whether particular purposes (functions) are longer than others. Are compliments (as in 'good introduction') shorter or fewer than criticisms?

In addition to the data sources used here, future studies could draw on students' reflection (for example, by think-aloud procedures or through diaries) on the effect of their supervisor's comments on their actions and their feelings, and this could be compared with the supervisor's reflection. We look forward to seeing this idea taken to its next step.

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