"HOW DO I KNOW HOW I AM GOING?"
ASSESSMENT IN POST GRADUATE RESEARCH DEGREES

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Abstract
A part of a Cathie-funded project on Assessment the author, along with two other applicants (Keller and Austin) chose to investigate the forms of a feedback postgraduate research students found helpful in their progress.

Two Departments were chosen for the study, one a science-based discipline the other social science. Both Departments have significant numbers of international students, most of whom have English as their second language.

The focus was on the students and their perceptions of the feedback they received, rather than supervisors and the feedback they thought they gave to students.

Information was collected through voluntary semi-structured interviews which were taped and then typed. The initial analysis indicates quite clearly the types of feedback which students find helpful and more significantly, those which they do not. The results of the analysis are discussed with an aim to develop possible strategies for change.

Context of the study
Assessment takes many forms and has many purposes. In postgraduate research the most common form during candidature is feedback on progress, i.e. formative assessment, with the only summative assessment coming at the end with the Examiners' Reports.

Crooks (1988) proposes that we assess in higher education for the following reasons:
1. selection and placement;
2. motivation;
3. focusing learning;
4. consolidating and structuring learning;
5. guiding and correcting learning;
6. determining readiness to proceed;
7. certifying or grading achievement;
8. evaluating teaching.

Of all of these, Crooks suggests that

'Perhaps the most important function of assessment in tertiary teaching is its role in giving the students feedback on their progress and achievements: helping them see their areas of strengths

¹ In association with Associate Professor Andy Austin and Dr Mike Keller, Department of Crop Protection; Dr Maureen Longmore, Department of Geography; and Dr Kerrie Round, Department of History, all staff of the University of Adelaide.
and weakness, identifying misconceptions and difficulties they are having and guiding and encouraging their further development' p. 8

During candidature students are learning and developing a range of research skills such as critical thinking, academic writing and experimental design. However, it is unlikely that students will receive direct, specific assessment of these skills, but rather written or oral comment as part of their overall progress. If students do not receive this feedback they are likely to feel confused and lacking in direction.

Powles (1988) cites a study by Ibrahim et al at the University of Sydney in 1980 and another at the University of Queensland in 1983 where one of the main problems encountered by research students was lack of critical feedback on work. For students who are embarking on perhaps their most sustained period of work on a single project, constant feedback that they are progressing along the right track, albeit not necessarily a straight track, is essential for their work and well-being.

Work in another study currently being undertaken by the author indicates that one of the main areas of concern for international students during the first six months of their postgraduate candidature is not knowing how they are going and whether they are meeting expectations. In fact, for many of them they are unaware of what is expected of them in this new cultural and academic environment. While local Australian students may not be working in a new cultural environment, for many of them their postgraduate research is a new academic environment with new, and often unknown expectations. Feedback for beginning research students appears to be crucial for the potential success of the overall candidature.

Following a Cathie-funded workshop on Assessment the applicants (Kiley, Keller and Austin) examined the forms of assessment (feedback) postgraduate research students found helpful in their research and how they knew what was expected and whether they were meeting those expectations.

The two Departments which were chosen for the study were based on a number of factors including: the percentage of international students enrolled, previous work with the Postgraduate Coordinator and a belief that the two Departments were prepared to take note of the outcomes of the study. While the focus was quite deliberately on the students and their perceptions of the feedback they received, it might be useful to consider another study in the future which asks similar questions of supervisors to determine the correlation between the two groups.

Methodology

Each postgraduate student in the two Departments was sent a letter explaining the purpose of the study and inviting participation. A time and location was suggested for each interview and the outline of the questions to be asked was provided on the reverse of the letter. The letter explained that the researchers were interested in hearing about the students' experiences and comments related to feedback on their work. Rather than excluding students who were involved in a coursework Masters, each student was asked whether the bulk of his/her time was spent on research or coursework.

Information was collected through voluntary semi-structured interviews which were taped. No student objected to being taped, but most required reassurance that they would not be able to be identified. In this paper student gender has been changed randomly to protect the identity of students. The interviews were then typed (but not transcribed) and analysed. While students often commented on a range of issues related to their candidature only comments specifically relating to feedback have been included in this paper.
Results

In the Science Department 41 students (91%) of a total of 45 listed took part. Those who did not attend the interviews had either submitted their thesis, were on field work or had child care constraints.

Two of the 41 students responded that they were involved in both coursework and research, the others, i.e. 39 (95%) commented that the bulk of their time was devoted to research.

In the Social Science Department 16 students took part in the study. Seven other students listed as postgraduate research students in the Department had either finished, moved on or were in the field and six additional students did not attend the interview. Indonesian students studying in a special Coursework Masters for Population Studies were not included in the study as they had been involved in an earlier study and the assessment arrangements made for this group are quite specific.

Table 1 summarises the demographic details for the students involved. Of interest is the difference in ages between the Science and Social Science students and the number of part-time and full-time students.

Table 1. Summary of demographic data for Science and Social Science Departments

<table>
<thead>
<tr>
<th></th>
<th>Science</th>
<th>Social Science</th>
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<tbody>
<tr>
<td>Potential cohort</td>
<td>45 students</td>
<td>23 students</td>
</tr>
<tr>
<td>Number taking part</td>
<td>41 (91%)</td>
<td>16 (70%)</td>
</tr>
<tr>
<td>Female</td>
<td>13 (32%)</td>
<td>6 (37.5%)</td>
</tr>
<tr>
<td>Male</td>
<td>28 (68%)</td>
<td>10 (62.5%)</td>
</tr>
<tr>
<td>International students</td>
<td>21 (51%)</td>
<td>6 (38%)</td>
</tr>
<tr>
<td>Local students</td>
<td>20 (49%)</td>
<td>10 (62%)</td>
</tr>
<tr>
<td>Full-time</td>
<td>37 (90%)</td>
<td>11 (69%)</td>
</tr>
<tr>
<td>Part-time</td>
<td>4 (10%)</td>
<td>5 (31%)</td>
</tr>
<tr>
<td>Age 20-29 years</td>
<td>18 (45%)</td>
<td>3 (19%)</td>
</tr>
<tr>
<td>Age 30-39 years</td>
<td>17 (42%)</td>
<td>6 (38%)</td>
</tr>
<tr>
<td>Age 40+</td>
<td>6 (13%)</td>
<td>7 (43%)</td>
</tr>
</tbody>
</table>

Feedback on progress

Science

When students were asked whether they had a ‘clear sense of how their study was progressing’ the responses for the Science Department were as follows:

- 30 (73%) reported that ‘yes’ they did know how they were going, with 4 of these saying they definitely knew how they were progressing.
- 4 (10%) reported that it was ‘so so’ although two commented that they thought this was part of the whole ethos of research and two others commented that they were getting to a stage of understanding after their first year.
- 6 (15%) reported that they did not know how they were going, three explained they were at the beginning of their research and they were not worried by this. Two students reported that it was just the nature of the project and that there was no way of knowing whether they were going the
right way until the results of their experiments were in. The areas were complex and it was difficult to be sure of the direction. Both commented that their lack of direction was not a result of poor supervision, but more the nature of the research. One student was concerned that considerable time had been wasted during the first year of candidature due to University requirements.

- One student had just submitted the thesis.

**Social Science**

For the Social Science-based Department the responses were:

- 8 (50%) reported that ‘yes’ they did know how they were going;
- 6 (37.5%) reported that they ‘hoped so’, or thought they ‘probably were’, but could ‘never say with certainty’. Two said that they did not really know how they were progressing;
- 2 (12.5%) reported that they definitely did not know how they were going. One commented that it ‘felt like a guessing game’ and the other commented ‘Never.’

**Table 2. ‘I know how I am going...’ summary for Science and Social Science Departments**

<table>
<thead>
<tr>
<th></th>
<th>Science</th>
<th>Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘I know how I am going’</td>
<td>30 (73%)</td>
<td>8 (50%)</td>
</tr>
<tr>
<td>‘Maybe...Hope so..’</td>
<td>4 (10%)</td>
<td>6 (37.5%)</td>
</tr>
<tr>
<td>‘I don’t know how I am going’</td>
<td>6 (15%)</td>
<td>2 (12.5%)</td>
</tr>
</tbody>
</table>

**How students know how their research is progressing**

Students were asked how they knew whether they were progressing and from where that information came.

**Science**

When asked how they knew they were on the right track and progressing for the Science students the most common way was from their supervisor/s (61%). Of interest was that 8 students particularly commented that it was the informal interaction which they had with their supervisor that was so helpful. This compares with the Social Science students who found written comments from supervisors to be most helpful. Six students mentioned their supervisor second in their list of ‘helpful’.

Five students (12%) reported that results from their experiments were the most helpful form of feedback on progress and twelve students reported that lab meetings were very helpful in providing feedback. This result was of particular interest to the Department as there had been considerable emphasis placed on the development of lab meetings in the past year or so.

Of interest were student comments on seminars, that is, the seminars that students are expected to present in the Department. While 7 students said seminars were somewhat helpful, most clarified that it was not the feedback one received which was helpful, but the experience of having to present ideas which was helpful. In fact a number of students stated that seminars were not a useful forum for feedback on work in progress because the professional interests of the Department were so diverse.

A number of students mentioned ‘Others’ as being helpful, these included other people in the field but outside the Department or other students.
Social Science

For the Social Science students, however, the situation was somewhat different. While the supervisor was still the main source of feedback, in this case 6 students commented that it was written comments on their written work which was the most significant form of feedback received with one student rating written comments second and another rating them third. Included in these figures, 5 students rated discussions with their supervisor as the main source of feedback. In only one case did a student talk about informal discussions with supervisors rather than planned meetings and discussions. Of particular interest is the comparison with Science students do not receive the same level of comment from supervisors on written work as they tend not to write up in the in-going manner that many of the Social Science students are encouraged to adopt.

For 2 students supervisors outside the Department (but within the University) were the main source of feedback and people outside the University of Adelaide provided significant.

Table 3. Summary of helpful feedback for Science and Social Science Departments

<table>
<thead>
<tr>
<th></th>
<th>Science</th>
<th>Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Most helpful</td>
<td>Very</td>
</tr>
<tr>
<td>Supervisor</td>
<td>25 (61%)</td>
<td>6 (15%)</td>
</tr>
<tr>
<td>Supervisor in another department</td>
<td>2 (13%)</td>
<td></td>
</tr>
<tr>
<td>Supervisor in another University</td>
<td>2 (13%)</td>
<td></td>
</tr>
<tr>
<td>Experiments</td>
<td>5 (12%)</td>
<td></td>
</tr>
<tr>
<td>Lab meetings</td>
<td>2 (5%)</td>
<td>10 (24%)</td>
</tr>
<tr>
<td>Friends/spouse</td>
<td>2 (5%)</td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>1 (6%)</td>
<td></td>
</tr>
<tr>
<td>Conferences/Referees comments</td>
<td>10 (24%)</td>
<td></td>
</tr>
<tr>
<td>'Others'</td>
<td>2 (5%)</td>
<td>6 (15%)</td>
</tr>
</tbody>
</table>

Least helpful feedback

Interviewees were also asked about the least helpful form of feedback they received.

Science

For many students this was a difficult question to understand and most commented that they had not received any unhelpful feedback. Of interest, 11 of a total of 17 who mentioned some form of least helpful feedback, were women.

From the comments the least helpful form of feedback was definitely the Departmental Seminars. As a general rule at the University of Adelaide research students both attend and present at Departmental Seminars. In particular, each student is expected to present his/her outline of proposed research to the Department within the first twelve months of candidature. Some Departments have special seminars for this purpose, others use the regular Departmental program. Students suggested that seminars were unhelpful because the audience was so diverse that the questions and comments tended to be superficial. One student commented 'At the Departmental Seminars they ask "stupid"
questions'. Other students (in addition to the six who commented on the seminars) suggested that it was not helpful when people, who didn't really understand the field, 'tried to be helpful'.

Other comments on unhelpful feedback included:

'Being made to feel "small" in the lab because I didn't know something'

'Pessimistic comments'

'Little comment on written work'

'Work being attacked because of people's views of the supervisor rather than the work itself'.

Social Sciences

For the Social Science students again the Departmental Seminars appeared to be the least helpful form of feedback. One student commented '...the seminars are penance' and two said that the seminars they presented to the Department were negative experiences, particularly as one had had the work criticised by the supervisor the day before the seminar presentation. One reported that '...feedback from the seminar was denigrating.'

From the comments it appeared that for some students one of the major difficulties was the lack of understanding exhibited for the theoretical framework underpinning their research. Students suggested this was due to the different forms of the discipline within the one Department.

Other desirable forms of feedback

In an effort to determine what other forms of feedback students might find helpful they were asked the question:

'Looking at what happens with your friends and other students, what sorts of feedback do they receive which you think would be really helpful for your work and progress?'

Science

The majority of students in fact did not have any comment to make on other forms of feedback which they would like, although a few said things like 'By comparison ours [Department] is the best' or 'If I need feedback I get it'.

Of the seventeen students who did have suggestions 9 were overseas students. Comments relating to feedback included:

• more students in the group working on the same or similar topic;
• further development of lab meetings;
• the establishment of a panel to evaluate students' work and its appropriateness for a PhD (similar to the practice in another Department);
• involvement of the supervisor in the lab; and
• more positive working relationships with supervisors.

Although not clear from the above comments, a sense came from the interviews that students felt that there were too many disparate interests within the Department and therefore there was not a sufficient
number of students and staff working in the one field to have an active, dynamic interchange of ideas on a specific topic.

**Social Science**

Again, not many students suggested additional means of feedback which they would like. However, comments included:

- having a supervisor who understood the theoretical framework;
- more information on the structure of a PhD 'what is expected';
- working in an environment where there is a lot more common understanding and sharing of views;
- a better student/staff ratio to allow for adequate supervision.

Again, listening to the interviews one had a sense that the Social Science students felt there were too many varied interests within the Department to support a specific topic or methodology. There was also a strong sense of 'busyness' within the Department. There were frequent comments about the busy and active professional lives of staff which often meant that students felt they should not, or were not able to, interrupt the supervisors to seek help.

**The Structured Program**

In 1994 the University instituted the Structured Program for PhD students. Most Departments, as with the ones in the study had extended the Structured Program to Research Masters students also. The aim of the Structured Program is to provide students with the requisite knowledge and skills to make an efficient and effective start to their research. In addition, all international students are involved in the Integrated Bridging Program which provides a language-based approach to starting research. As part of the study students were asked to comment on the overall usefulness of the Structured Program not only as a means of feedback, but for beginning their research.

Most students in both Department who had undertaken a Structured Program found it to be helpful although some commented that it was good in theory, but in practice either too inflexible or not helpful in addressing their needs. (See paper by Andy Austin and Margaret Kiley, Symposium 5.)

For International Students, a component of the Structured Program is the Integrated Bridging Program and the students who had done that found it very helpful. (See paper by Margaret Cargill, Symposium 7.)

**Annual Review of Progress**

The University of Adelaide has a system of Annual Review of Progress where both the student and the supervisor present a report of progress over the past twelve months and indicate milestones for the next twelve months. The Postgraduate Coordinator and/or Head of Department is expected to review each student's progress based on the reports and an interview and then report this progress to the University's central administration. Students were asked to comment on the usefulness of the Annual Review as a means of feedback on work in progress.

**Science**

Most students had taken part in at least one Annual Review, although students who had commenced in 1995 were yet to have one. For those students who had, the comments on usefulness were fairly uniform. The Annual Review of Progress was not generally seen as a useful means of feedback on work. Although students appreciated the need for such a process of 'checking' they suggested that
the people doing to Review were not always *au fait* with the student's topic and so could only talk in generalities.

Of interest was the comment from a number of students that they thought the review process would be helpful for students having difficulty, but as they themselves did not have any problems it was a 'paper exercise' only. And yet students who did have problems felt that it was not a place to raise problems and that they had had to deal with their problems in other ways.

Students, on the whole, thought that the process was helpful in making one feel 'cared for' or that 'someone bothered' as well as highlighting the need for, and the provision of, additional resources but not as an academic exercise related to the actual work being undertaken.

A recent innovation in the Department was the Student Symposium Program. The Program was seen as a means of providing an opportunity for all research students in the Department to present their work to students and staff of the Department. Students were given fifteen minutes to present an update on their work over the past twelve months. The Symposium was conducted just before the Annual Review process so that the Head of Department and Postgraduate Coordinator, as well as other staff and students, could gain an insight into students' work.

As the interviews occurred just before the Symposium an additional question was included asking students to comment on their expectations of the helpfulness of the Symposium. The majority considered that any value that the Symposium would be as practice in presentation skills and would have little or no benefit as a means of feedback on work. Twenty seven (66%) thought that it was a good idea - even with reservations - but only as a means of developing presentation skills. Eight (20%) were not at all happy with the idea, particularly as it was going to be taking such a long time out of their working week.

(Note: A follow-up evaluation of the Symposium was conducted and 11 of the 27 students who responded to the evaluation said that the Symposium was better than they had expected and 8 students rated it as very worthwhile and 16 as worthwhile.)

**Social Science**

Seven students (44%) considered the Annual Review to be useful, but only 2 thought that it was helpful as a form of feedback on progress. Three students commented that the Annual Review was not at all helpful and six commented along the lines of the Annual Review being superficial and not a place to raise grievances but that 'at least something was happening'.

**Other comments**

Following comments in the first few interviews an additional question was included after the seventh interview for the Science students and for all Social Science students. The question related to whether students would prefer to have a component of coursework in their PhD program. A number of students had suggested that if there were a coursework component they might be able to gain early and specific assessment. In Science sixteen students (39%) commented that they would have preferred some formal coursework in a PhD program. Of these, the majority were international students (72%). Six (37%) of the Social Science students thought that a coursework component in a PhD would a good idea but eight (50%) suggested that they would not like it and two felt that there were benefits of both types of courses. As with Science, the majority of students who preferred a coursework component, were international students.
Students were also invited to make comments on any aspects of the interview and a number took the opportunity to expand their response. However, only comments related to feedback have been included in the following comments.

Science

These comments included:

- ‘It is very important at the beginning for the students to know the expectations of the relationship with their supervisor and to know what is expected of them as a student’.
- ‘There should be oral defence of the thesis’.
- ‘I wish that other supervisors were as interested in their students’ work as my supervisor is in mine.’
- ‘It would be better if there were more people in each group who were working on similar topics’.
- ‘Supervisors need to realise that they need to give more help to overseas students at the beginning of their candidature’.
- ‘There are too many students in the xxx section for them to be adequately supervised’.

Social Science

Again in this Department, as with the Science Department, some students felt that the ratio of students to staff was quite poor and so supervisors were too busy to adequately supervise all students.

Discussion

When discussing the students’ perceptions with the Departments’ Postgraduate Coordinators it was clear that the most interesting finding was the difference in perceptions held by staff of the Department from those held by students. Certainly one of the most useful outcome of the study would be to encourage discussion between staff and students which led to shared understandings of the usefulness of various Departmental practices in providing feedback to research students.

For example, in most Departments students are expected to attend Departmental Seminars and present once or twice during their candidature. The main reasons staff give for students to attend are:

- as a means of exposure to the wider culture of the discipline.
- the opportunity to provide constructive comment to the presenter;
- to learn more about the topic under discussion.

It might be argued that part of the development of a researcher it to be aware of developments in the field, even if they are not directly linked to the student’s specific area of research. On the other hand, students often feel so pressured for time that attending seminars which are not going to directly contribute to the satisfactory completion of their thesis, can come quite low on their list of priorities. On the other hand one of the reasons that students are likely to attend seminars is to provide support for fellow students. In fact, it is not uncommon for a student who is presenting to have other students ‘planted’ in the audience to ‘head off’ any particularly difficult questions from some staff members.

Given that students may be quite single-minded in the pursuit of their own topic, it could well be the case that seminars in other Departments would be more helpful, particularly if they are discussing a methodological or theoretical approach of interest to the student.
In terms of students presenting their own work to the Department, particularly the outline of proposed research, one option is to establish special seminars or workshops and encourage students, with the help of the supervisor, to invite the people they want to attend. Rather than have all Departmental staff present, including those who work in a different area of the discipline or who use a very different methodological or philosophical approach, it might be far more helpful for students to invite academics and students who are involved in similar research areas. This is particularly true for students working in multi-disciplinary areas and those which adopt research methodologies not usually used in the field. By inviting such people to their initial seminar students may be able to establish long-term support networks with people who have interest and/or skills in the research topic or methodology. It might also be possible to develop a more collegial and helpful environment for beginning researchers if the participants were invited.

Already with the Social Science Department an Honours and Postgraduate students’ research group has been established. The group is coordinated by the students, with some assistance from the Postgraduate Coordinator.

Given that students are not perceiving the Annual Review as a useful form of feedback but do see it as helpful in providing a caring environment and an opportunity to discuss issues (not specifically the content of the research) then the need for clarification of aims, purpose and practices would seem to be helpful.

In the case of the Science Department the provision of the Student Symposium might be one way addressing the difficulty of providing the Postgraduate Coordinator and/or Head of Department with enough background information about the student's project that the Annual Review can be a more meaningful exchange. Overall, there appears to be some further work needed where students and staff work together to share perceptions and expectations so that Departmental practices might be as helpful and meaningful as possible to those concerned.

Summary

While the results of the study were not surprising in that one would expect that the supervisor was the main form of feedback to research students there has been some interest in the students’ perceptions of Departmental Seminars and the Annual Review.

The expectations of staff differ from those of students regarding the purpose of these two activities. To enable a more consistent approach to formative assessment in postgraduate research it appears from the study that a common understanding of purpose is essential.

For students who have not before undertaken a major piece of research and writing, the need for feedback on their progress and direction is necessary if they are going to develop as researchers, let alone successfully complete their award program. The majority of the students involved in this study did feel that they knew where and how their work was progressing and the areas of concern are now being addressed by the respective Postgraduate Coordinators.

References
