Summary
This paper discusses the findings of a multidisciplinary quantitative and qualitative investigation which explores the impact of the supervisory relationship on doctoral students’ learning, their personal and professional growth as well as on the efficient completion of their doctoral theses.

The fact that the strongest needs expressed by students in this study were for elements of facilitation and challenge suggest that students want a substantial amount from the interpersonal supervisory relationship. It emphasises the centrality of the personal interaction as part of the learning and growth process, creating an environment safe enough to allow for intellectual confrontation, rigour, challenge and criticism as well as the possibility for dialectic and exploration. Additionally within the supervisory interaction is the need for nurture to ensure adequate encouragement, motivation and personal support for research students to keep up the momentum towards constant progress.

The simultaneous supervisory provision of facilitation and challenge may impose a degree of supervisor role strain. Supervisory implications will be discussed.

Introduction
The current university climate demands efficient research supervision. The present investigation emerges from the strong support given by the literature to the interpersonal interaction within supervision. (Rudd 1975; Katz & Hartnett 1976; Welsh 1978; Moses 1982; Ibrahim, McEwan & Pitblado 1980; Salmon 1992; Malfroy & Webb 2000). While appreciating that higher degree research study is primarily an intellectual task where
substantive and organisational assistance from a supervisor should theoretically suffice, it is the contention of the present study that only when the interpersonal interaction is positive and comfortable can the academic and organisational supervisory components be optimised.

The study

Quantitative Data

In pursuit of greater clarity and understanding of the interpersonal relationship in doctoral supervision, both qualitative and quantitative methods were used. A sixty-two item Preferred Supervisory Interaction Questionnaire was developed with a five point rating scale. It allowed for student preferences to be determined, taking into account the variables of age, gender and cultural differences as well as any effects in the matching of these variables with those of the supervisor. Additionally, the responses on the rating scale facilitate the identification of similarities and differences of student’s perceived interpersonal supervisory requirements within and between academic disciplines. The rating scale questionnaire was mailed to all 780 currently enrolled PhD students on one metropolitan campus of a large Australian (Victorian) research university. 315 responses were returned by mail (40% response rate). The percentages of respondents within each category and faculty fairly closely mirrored the distribution in the total student cohort.

Data from the rating scale questionnaire was computed using SPSS, and tested for reliability. Data were factor analysed for factor structure and significant relationships between variables were identified by means of univariate and multivariate analysis of covariance.

A number of interesting findings emerged which indicate complex interactive effects of supervisor and student characteristics together with the culture of the department, result in particular student needs within supervision.

Details of the quantitative phase of the study are not addressed in this paper. (Lamm 2002)
Qualitative data

An open response question was included on the questionnaire, which allowed students to respond freely, without direction to express their perceptions of the major strengths and weaknesses which characterised the way their main supervisor interacts with them. It therefore facilitated further data confirmation, allowing for validation of students’ responses to the scales as well as the collection of additional data. These student responses were thematically coded. 86% of respondents on the questionnaire answered this open question. The fact that so many chose to add a comment is further confirmation of the importance of this topic to students.

The further qualitative phase of the study involved semi structured student interviews. Fifteen doctoral students were chosen in a purposive random manner, to include a balance of male and female students from a range of faculties, at different stages in the doctoral process, being supervised by male and female supervisors within the three relative age categories. Interviews of about an hour’s duration were tape recorded, transcribed and analysed. Themes and patterns were identified in accordance with inductive analysis procedures recommended by Van Manen (1990). An audit trail was conducted by an external auditor. In this way the rigour of trustworthiness and authenticity that Denzin and Lincoln (1994) identify with the constructivist paradigm were upheld.

Data Analysis

This paper focuses on the two scales on the quantitative analysis which presented as extremely important to students in spite of their apparently contradictory nature. These are facilitation and challenge, which emerged with a mean of (4.05) and (4.01) respectively. (4 connotes very important on the five point scale, 5 being essential). The centrality of these two aspects of supervision within the student experience was also emphasised in the qualitative phase of this investigation. I shall discuss each in turn referring to findings from student interviews and the open question on the questionnaire, and then point out their implications within the current degree process.

Facilitation

The theme of facilitation as utilised here, encompasses a broad area which includes a supervisor being available, being approachable and creating the type of supervisory climate where a student is comfortable and not intimidated to engage in dialogue. Much of what is
included within this factor is conceptually closely related to Rogers’ notions of ‘facilitating learning’ (Rogers 1967).

The importance that facilitation assumes for students confirms earlier research (Rugg & Norris 1975; Katz 1976; Eggleston & Delamont 1983; Moses 1991; Phillips & Pugh 1992; Salmon 1992; Zuber-Skerritt 1992; McMichael 1992; Conrad 1994) and is related to the unequal power relationship, where the supervisor sets the tone, and is the one who needs to ease the nature of the interaction. The language used by students confirmed this facilitative expectation. Students voiced their need for the supervisor to encourage and motivate, set the tone for communication and to show care and respect for them and their work.

Supervisor Availability

Students were generally appreciative of supervisory time that was available to them when required, particularly when confronting difficulties in the research. They reported feeling despondent when supervisors were unavailable or too busy to meet or attend to their concerns. Students wanted their needs met. They wanted to be able to access supervisory assistance when required.

Oh yeah if I’ve got a problem with my work, O yeah, he’s quite good you know, he just says, just come in and see him. You just knock on his door. I can always approach him, that’s the good thing about it. I can always ask him and say, “Look, I’m stuck, I don’t know what to do here. This is my work and that’s my work,” and he does tell me what to do. (Student 4)

The laboratory environment often facilitates daily easy contact between student and supervisor and provides students with a sense of immediacy with which they can access help and have their research concerns dealt with.

Well, he has to walk through the lab to get to, to actually get to his office, so I see him every day. He walks in and out a few times getting coffee. So yes, I have to see him every day. We always talk, “Hi!” We start talking about what I’m doing, he tells me what he’s doing, so that type of conversation, which is quite good. (Student 4)

Even though they demonstrated a measure of understanding when they were aware that the supervisor, not acting with a lack of good will, was simply overcommitted and as a consequence did not have much time available or could not be contacted. Students not being able to make contact with a ‘too busy’ supervisor for long periods of time was at
times interpreted this as a lack of care and concern and developed a sense of not being important enough

He’s been really practical, gives good advice. The problem is he’s unavailable a lot of the time. He’s too busy! I’d like help when I have a problem and he’s not always been available then. He’s sporadic in his assistance and attention. At times he’s not that busy and has time to devote. At other times he’s got a heavy lecture load and can’t devote time and focus to my studies.

One of the problems was the lack of availability of supervisor 1. It was difficult to pin him down to meetings I found that when they happened they were extremely helpful and beneficial but the infrequency was difficult.

While availability or accessibility may appear initially as relatively trivial in terms of the academic supervisory experience, it appears to have major and consequential ramifications for a student’s sense of well being in the process and in terms of their perception of their work.

Some students were aware that this need was difficult to always satisfy, since for some students and in some situations unrestricted access to the supervisor was what they perceived as optimal.

You always want more. However much time a supervisor gives it is never enough. For me this is my project and my total focus, while for him it is a very small part. So for me it could never be enough.

Basically it’s just time. Not enough time but how much is enough? Even if he sat in my pocket every time I need him I guess it would be enough but I can’t do that.

The opportunity for a student to get specific or general help, encouragement, focus and the like from a supervisor at the precise times when there is a need, is something that appears to be more available to full time students than for those who are part time. The delay in accessing supervisory advice or help often exacerbates frustration, and halts progress, since a problem may act as a stumbling block or a barrier to continuity and cost a student inordinate unproductive days, weeks or months of distraction, or cessation.

**Support for emotional crises**

Many students report experiencing extreme emotions during the course of candidature, sometimes swinging from one extreme to another. I have another paper at the Conference
“learning and affect in the research higher degree” which explores the emotional concomitants of learning in the process. Frequently there is a need for the supervisor to give support at these emotionally laden times.

Right at this moment I’m climbing out of a black hole and that has been extraordinarily painful. That has been the crunch time and the issues have come together in a way that they never did before and this is where I really hand it to (my supervisor). Because he gives you enough freedom to explore these things and to go into these black holes and doesn’t try and rescue you. Now that’s painful in its own way. But it’s incredibly helpful because it means that you really do process your own journey. I usually only go to see him when I run into a problem, in the case now. I’ve been trying to see him today, but I find him really good with that. I say, I’ve run into this problem and I don’t know how to deal with this, I don’t know where I m going with that and he sets me back on track very quickly and well. ………I know he uses some of those psychological techniques, I don’t know which ones but they work. Almost the power of positive thinking but it’s much more profound than that. I find I walk away from there saying yes I can do such and such! It’s the picking you up and dusting you off, but he doesn’t put it that way. But the message has got through and he’s also given you an approach that helps you to get the thing under way again. It doesn’t take him very long. Often he can do it just in a matter of minutes. Quite a gift!

It was apparent that at times it may be of benefit to the student to struggle through issues and resolve them alone, a fact acknowledged by students as an often worth while learning exercise. However, this was frequently seen by students to be an inordinately lengthy process and not always one with a positive outcome.

**Encouragement**

A supervisor providing encouragement was an aspect of facilitation that was highlighted in interview data, where students’ motivation was at times substantially affected by a supervisor’s degree of interest and enthusiasm. For example:

Verbally he gave a lot of encouragement which was crucial to my motivation and continuation each time. It made me feel respected and valued in terms of my abilities. I am an independent person as a student, being older and all, and I had set up the whole research project essentially alone. … The most important part of supervision for me was the encouragement the sense of ‘You can do it, you’re on the right track.’ That gave the push to continue. At each meeting that little encouragement was the push needed to continue.
When I interact with him, I often feel as though prior to talking to him I’m lacking some confidence about where I might be going as far as the PhD is concerned. But talking to him often causes me to feel much happier about the direction I’m going and how the work might develop. And in that sense yes, I find it a very useful relationship. He’s encouraging rather than more specific about the structure. Yes, often when I talk to him, I come away feeling positive from the interaction.

Validation

Interview data indicated that although many of the students highly valued the encouragement they were given from a supervisor and found it motivating, they often wanted more than encouragement, they wanted to feel validated by their supervisor.

For some students though, this sense of validation and respect extended to their person, “Valuing me as a person.” “I don’t think I’d have reached this point without his faith and belief in me and the worthwhileness of the project.”

He has consistently sustained and supported the idea that: I would be able to work it out, that it would be worth working out, worth doing and eventually I’d get it done.

It was also relevant in terms of the supervisor actively appreciating the students’ substantial commitment to the research, as well as catering for their experiences of emotionality and academic self doubt. The importance of validation found in this study, supports findings of Powles (1992) and Burns et al (1994, 1999), who identify the need for academic work to be recognised and valued by a supervisor. Validation is powerfully dependent upon adequate supervisory communication since it is relies primarily upon the style and manner of verbal interaction.

The extent of supervisor interest and care and commitment to the project was perceived as a source of encouragement and motivation, and was validating for the student.

I think he cares about my project much more profoundly than he ever lets on. I can’t tell you why but that’s the impression I get. He joked about it the other day saying he stays awake at night worrying about the problem of………. Well, all right, it was a joke, but I really think he is profoundly concerned about it.

He’s got a real commitment. Doesn’t matter that I’m a PhD student and not a vice chancellor or a minister, …so its fantastic. He cares very much about my project.
The need for a supervisor to believe in the project and in the student was firmly expressed.

…So he always made you feel like what you had to say was important even if it was just important to you. And he always made me feel when he read my work like it was worthy.

**Academic uncertainty**

Students’ substantial need for validation seemed to emerge out of the general academic insecurity that many students at this level experienced.

At times uncertainty took the form of doubting the value and meaning in the project. Sometimes it manifested as depression, lag in the middle of candidature often related to the length of time required and the enduring loneliness of the process.

I could not see where it was heading. I missed encouragement and a sense of purpose. I felt like I was drowning in a sea of matter and there was nobody to help me surface or find my way out.

Self consciousness of mature age students was evident in a number of situations, with several of the mature age students making some personally denigrating comment: “You might ask why a 47 year old is doing a PhD, I haven’t a good answer.”

For many PhD students, there was a sense of uncertainty at being initiated into an ill defined territory, even though most of the students said that they felt well prepared since they had already attained a research degree, often a Masters degree and many of the students were mature age and successful professionals. “I mean for me it was the first time round for this process.”

The unspecified, and somewhat amorphous nature of doctoral requirements often left students feeling uncertain and they repeatedly mentioned their tentativeness in whether they were fulfilling the requirements. Only the supervisor was in a position to communicate the adequacy of their work. and it was often critical for them to know that they were working at the appropriate level.

And a couple of times I would say to him, “Am I really writing at a PhD level?” and he would say, “Absolutely, why would you think you weren’t?” So, that’s the type of emotional support, that making me feel that you’re doing what you’re there to do.
"Am I on the right track here, or am I just going somewhere, you know, where it doesn’t make sense?" And he tells me, “No, you’re on the right track, things are looking good.” So it gives you confidence in that respect.

For some students, the academic insecurity translated into a difficulty in approaching the supervisor or handing in work, or a constant striving for an unattainable perfection.

For many, the assistance from the supervisor was crucial during difficult times in providing a sense of direction and confirmation that the work being produced was of an adequate doctoral standard or had the potential to be so. Academic insecurity experienced at some point during candidature was mentioned by several of the students, and contrary to the suggestion in the literature, appeared not to be gender specific.

Support - or more support
Students in the present study, confirming earlier work such as Katz and Hartnett 1976; Connell 1985; Fraser 1977; Welsh, 1978; Bargar & Mayo Chamberlain 1983; Moses 1989; Burgess, 1994) highly valued supervisors who showed an appreciation for the complexity of student lives and factors outside of their studies that impinged on progress. In particular, they appreciated a sensitive and caring approach.

Some students, especially mature age students, were extremely appreciative of supervisors’ understanding the multidimensionality of their lives, particularly as it affected their projects. This phenomenon appeared to be more pertinent to older students perhaps due to the often greater complexity of their existence and the potential for conflict between life issues and academic progress. Some students it seemed, did not seek support beyond the focus of the work,

To me a supervisor is there to support you through an academic process not a personal process

Supervisory support of a more personal nature, was highly valued and appreciated by several students. The manner of this support was dependent upon a sensitive understanding of students’ personal circumstances together with an appropriate, considered, confidential and empathic response.

Um.. but my relationship has been very much about the technicalities of the work. But at the same time, I was very ill for a long time last year and there were very few people who knew and ultimately, when I said to Supervisor 1, “I really need to tell you why this is going slowly, but I want
you to treat it in the utmost confidence,” he was so personally supportive. And he has asked me a couple of times since then, how I am going and whether I’m well, but never in any personally invasive way. So I’ve been very conscious that having said this, and I did to Supervisor 2 too, having said this to them I really got the personal support I needed. You know, I got a very human empathic supportive response

For Student 8 when enduring particular difficult personal circumstances, sensitive understanding helped him back on track.

He was very accommodating and understanding and made some good suggestions……….He managed to put my study aspirations into my family context in a sensitive way, and suggested that I address one or two issues in a particular fashion. That gave me the kind of persistence …helped me get progress under way.

A number of students who expressed essential satisfaction with their supervision and the amount of motivation, interest and help given, still mentioned a desire for more support or more support at times.

Respect

The dimension of respect as a reciprocal phenomenon, identified in the literature (Rugg and Norris 1975; Madsen 1983), was confirmed as extremely important in both the quantitative and qualitative results of the current investigation. Students want to be able to respect their supervisors and also to have their respect.

Having to win a supervisor’s approval

Many students suggested that the respect that the supervisor showed for them as people or as professionals was very important to their sense of academic self.

Supervisors having respect for doctoral students, appears however, from the findings of this research, to be a privilege that has to be earned and is not simply integral to the respective supervisory roles. There appeared to be an unarticulated contractual arrangement predicated upon the assessment made by the supervisor regarding the capability of students, the quality of their work and its potential. These students had the sense that only after having proved their worth, that they were academically capable and their proposed project has value, did they feel that their supervisor considered them eligible for ‘real’ supervision, in terms of time and commitment.
The early stage of the degree was seen by some, therefore, to be a period of testing. Only after that initial unarticulated assessment did those students feel that they had gained the commitment of their supervisors.

It appears that some disciplinary differences may exist in the manner by which a student gains tacit acceptance by a supervisor

Student 7 had a clear understanding that supervision was like a continuing contractual arrangement and she had to keep her side for continuation of the relationship.

......... he really only then specified two requirements : “I want to see publications out of this before you submit, and you submit nothing without my approval”. That’s fine. He cares very much about my project but at the same time, I mean this man’s no softy like he’s stuck to it all along, “I want publications. He’s not submitting till I get publications out of this. That was his first ground rule and he hasn’t budged. So, if I wasn’t actually delivering, he’d dump me like that too, I know that.

It was primarily students in Humanities, Social Sciences and Education who intimated this notion of a ‘testing’ period. It appeared that frequently students in the Sciences felt that they had passed the test on entry to the programme.

Supervisor has to prove him / herself

It appeared that the early stage of doctoral candidature is something of a testing ground for the supervisor too. The student wants to identify that the supervisor has the capacity to supervise, is intellectually superior and sufficiently knowledgeable to offer adequate assistance. Students seek a combination of substantive knowledge, an understanding of research methods and a sense that they are going to be given adequate direction, as well as considered feedback and guidance to evolve a viable project.

I am constantly overwhelmed at the extent of his knowledge, his reading and his ability to apply what he knows. At times I think I’ve almost got the measure of you now Supervisor 1, and then I find I haven’t. He’s encyclopaedic- that’s not the word. The depth and profundity of his knowledge I find quite awesome. For that reason I try sometimes not to be in awe of him, though I think I am. So that actually creates another dimension too…This is raising something I haven’t processed. And yet I know that there are dimensions of the thesis that I know he doesn’t have a grasp on, knowledge of the intricacies that he doesn’t have a grasp on.

He has a capacity to multi-task which is staggering. He has the ability to read, absorb, communicate intelligently very quickly.
A lack of supervisory expertise is experienced, particularly at the beginning, as disappointing, and at times has serious emotional consequences. For example, Student 1 considered the supervisor’s lack of input and expertise a cause of his depression and also attributed attrition to this fact.

Once I really got a hold of what was going on I realised that the project she had set me she didn’t herself know anything about at all… So this has caused a problem. Basically I’ve had to do all the work alone and I think that’s part responsible for why it’s taken me so long. ……She has no real idea at all of the …… and the process….She doesn’t know what is going on and doesn’t understand any of the theory behind it at all, so I’ve had to learn everything on my own. …..must admit it’s been very hard at times, very depressing.

The well informed or intellectually superior supervisor, was the primary factor upon which other supervisory features contributing to student satisfaction were able to be built.

Reciprocity

Confirming the findings in the literature, the interview data also suggested that both members of the dyad have to prove their worth and gain the respect of the other in order for the relationship to succeed. In addition, it would seem that although the function of tertiary supervision is basically to benefit the student recipient, nevertheless, as has been identified in the literature, doctoral students are in a position very often, of providing some benefit for the supervisor too, in the form of collegiality, mutual interest, and alerting them to areas of literature or practice outside of the supervisor’s domain. Three quarters of the students who were interviewed in the present study, made reference to the potential contribution that they had made or hoped to make for their supervisors, or alluded to features such as shared interests. Without the researcher having the benefit of the supervisors’ perspective, or objectivity, it would nevertheless seem that students who were aware of this factor created the foundations for a more mutually rewarding relationship.

It was a good mutually beneficial arrangement. I got training, help and the entree into academia, joint publications and financial support, conferences and so on. She got a student to undertake her research projects, read the literature and write critical summaries. It increased her number of publications and lessened her work load.

I’ll write the paper and he’ll co-author it
Challenges

The items on the challenge scale include items like, ‘challenging my ideas vigorously’, ‘strongly pointing out weaknesses in my argument’ and ‘forcing me to think again about my assumptions’. These items, of a more general intellectually confronting nature, are in keeping with the goal of personal intellectual development that had been identified and valued by many students, both in this study and in the literature. Frequently, students want a supervisor to present them with a stimulating intellectual environment where their thinking and ideas are safely challenged. There is an assumption of this being a means to personal growth, greater understanding and higher levels of thinking and reflective abilities. The fact that the items of challenge are highly rated in spite of the powerful language used, such as: ‘forcing, vigorously, strongly’, confirms the extent to which students want this element of intellectual confrontation. Students want their ideas challenged so that they are encouraged to re-evaluate, reflect and think in other ways. They are happy to be removed from their intellectual comfort zone to a sphere of uncertainty, often accompanied by discomfort.

Academic guidance, in the form of teaching, direction, advice on the literature, critical appraisal and rigour, is frequently noted in supervisory literature, and can be understood as comprising the ‘academic’ aspect of supervision. However, the more general phenomenon of intellectual challenge, pertaining to intellectual development, which the present project identifies as an important supervisory need, when embedded in a comfortable and trusting supervisory relationship, has been largely neglected.

Nevertheless, it does feature in some research such as the work of Zuber-Skerritt (1987); Salmon (1992); Cullen et al. (1994) and Johnston (1995) and has been clearly identified as an important educational phenomenon by Brookfield (1990).

The work of Carkhuff and Berenson (1967), developed from Rogers’ theoretical stance, propose that challenge is facilitated by the congruence and empathy present in the relationship.

Learning theorists such as Boud (1981, 1985) integrate the significance of support as well as challenge and confrontation. It is apparent therefore that an environment that allows for intellectual confrontation presupposes a closeness in the learning relationship, one of caring, interest and concern for the students’ well being and personal development. Only within such a trusting relationship can intellectual confrontation take place as a positive
feature, rather than as a threatening behaviour with negative consequences. The supervisor is therefore only in a position to provide a challenging environment for a student if the supervisory relationship is a comfortable and facilitating one. Students want to feel that they can approach the supervisor and not feel too intimidated to ask questions. Challenge has therefore to be placed within the context of respect and validation, understanding and empathy.

Discourse within the dyad is the foundation for an open, facilitating, nurturing and challenging relationship that allows for learning through informal discussion and open, unintimidating questioning. Student comments on the open question highlighted their appreciation for this feature. For example:

- Interest in debating ideas outside the immediate parameters of the thesis
- Critical thinker- provides me with continual things to think about, providing a learning environment
- Challenging my ideas but valuing them at the same time
- Enthusiastic discussion including valuable comments, Ready to discuss, argue, advise
- She is an excellent devils advocate and has trained me to be critical in this way
- Pushes the boundaries of understanding

And in relation to the work:

- He has been rigorous in forcing me to consider and position my work in relation to wider academic discourse- to show how it's relevant to the communities of scholarship
- He is a scholar who pursues rigorous scientific method
- She sets high but attainable standards
- Encouraging a scholarly approach, in depth research and rigorous analysis

**Honesty, and Rigour**

The items most highly rated by students in the questionnaire, and thematically situated within both factors was that of honesty. (being honest in appraisal of my work; being
honest in our interactions). The notion of honest supervisory interactions was highlighted in the open question and also interviews.

Students in this study confirm the importance of the duality of honesty and of rigour within their supervision experience. While critical appraisal may well be considered a form of academic guidance in supervision, the students’ need for honesty emphasised in both the quantitative and qualitative data, indicated the inextricable connection between these roles.

Students highly valued supervisory honesty since they want to be genuinely informed about the quality of their work. It would appear therefore that students want to be told clearly, openly and directly when their work is not of an adequate level. Additionally, students wanted critical, rigorous appraisal of their work. However, notwithstanding students’ desire to attain an adequate standard in their work, they generally simultaneously wanted human sensibility.

While appreciating strong critique, they simultaneously desired some form of positive appraisal, and some support and encouragement

**Gentle Criticism**

While doctoral students indicated a commitment to academic rigour, highly valued honest criticism and the necessary critical appraisal of their work, the simultaneous lack of positive encouragement and affirmation was found by some students to be quite a negative experience, even for mature age students who were already successful professionals. It seemed that some positive appraisal was frequently perceived as an important component of the interaction and also when accepting valid criticism particularly to avert students from losing interest and motivation, thereby causing attrition or withdrawal. This supports the earlier findings of Burns et al. (1994; 1999) and Powles (1992) who identify the need for supervisors to appraise sensitively and mark gently. Harsh criticism without regard for positive features, was seen to be demotivating.

I appreciate the corrections but I’d like some reinforcement too. It was pretty destructive at the beginning.

Supervisor 1 can be quite severe. On one occasion I went to him and said, “Look, your remarks the other day did not help me.” I said to him, “I was quite discouraged for several days afterwards,” and he was surprised.
I see myself as mature age so I see my needs different from younger people… I mean both Supervisor 1 and Supervisor 2 aren’t good at what I call elephant stamps. And I’ve said to both that when they’ve marked, can I have a tick, you know, like, is this OK? Um, and its OK to have actually asked for such a thing ‘cause it is a lonely exercise…..Like, they just provide, you ask them for a critique and that’s what you get, a critique, they don’t sort of say, “Look, you’re doing really well and you know this is a good one.” What do I say to them, “You’re happy here?” When I got to know Supervisor 1 I’ll say “Are you happy here Supervisor 1?” “Ar yea, it’s terrific,” “Ah, thanks Supervisor 1,” I want to know! They give you this chapter that I’ve sweated over and all that comes back are these little red pen marks that you know …I said, “Was it OK?” “Oh, it was terrific!”

Negative supervisory appraisal was very traumatic

…..when she got my chunk of work that supervisor 1 had approved and had no problem with, she just tore it to shreds, so much so that she said, “You’re not even doing a PhD, this work is below standard…….she was so cutting and so nasty that I was actually going to withdraw on the spot. ………. So, her comments and her criticism, she hurt me that much, that I actually wanted to quit the PhD.

So ….. he knew in his head there were going to be a lot of problems but he didn’t say it to me till the very end then he did come down like a ton of bricks but in a very nice way too and that’s the difference too in how to deal with students.

Just the affirmation without critique was negatively perceived too. For Student 1, there was a need for real feedback, not vaguely being told to continue. He wanted work marked, critiqued not just a tick. When the student felt that the supervisor was not competent in the substantive and research area, no nod or positive comment became really meaningful.

As candidature progresses, student need for intellectual challenge appears to increase and this becomes a serious feature of the supervisory requirement. However, it was a need for challenge and academic rigour paired with validation and encouragement.

While these elements comprising the factor facilitation are associated with easing a student into the process of doctoral research and into supervision, being essentially elements of nurture, there is a simultaneous strong need for challenge within supervision. Challenge comprises apparently opposing elements, those of intellectual confrontation, appraisal and questioning and criticism.

What emerged therefore was the often conflicting need for a supervisor to be simultaneously rigorous, critical, honest, encouraging and supportive.
The fact that the highest needs expressed by students in this study were for facilitation and challenge suggests that students want a substantial amount from the interpersonal supervisory relationship. It emphasises the centrality of personal interaction as part of the learning and growth process, as well as seeing it as fundamental to the personal support needed by a student for keeping up the momentum towards successful completion. It presupposes a particular type of closeness that allows for nurture and challenge, both safe and comforting while permitting intellectual confrontation and the possibility for exploration. Therefore, while much learning is acquired alone, there is the potential for significant and substantial learning to take place within the supervisory relationship and it is this relationship that also ensures adequate encouragement, motivation and personal support for constant progress to ensue.

Discourse within the dyad is the foundation for an open, facilitating, nurturing and challenging relationship that allows for learning through informal discussion and open, unintimidating questioning. This feature, highlighted in the present study, confirms findings in the literature (Madsen 1983; Connell 1985). Perceived within Egan’s (1976) theoretical framework, adequate communication patterns were seen to depend largely on the supervisors’ level of social intelligence.

**Characteristics of the Dyad Affects Supervisory Preferences**
Multivariate analysis identified a range of significant associations between the supervisory experience and characteristics of supervisor and student, and supervisory preferences. While the extent of the need for these two supervisory elements was generally high, there was some fluctuation across department depending on age and gender of student and supervisor. These findings are complex and somewhat inconclusive.

**Implications for Supervisors**
Providing for the substantial needs of students for support and challenge, discussed earlier, would of necessity impinge heavily on the supervisors’ time, interpersonal skills, particularly communication skills, and professional abilities and networks.

While supervisors may be skilled professionals in their substantive areas of expertise they may need to enhance interpersonal and communication skills in order to cope better with these supervisory demands. The student need for facilitation from a supervisor as
addressed in the investigation, suggests that supervisors may have to establish a demeanour of approachability, being open to student communication, and non threatening. This relies largely upon their communication skills and emotional intelligence. Supervisors would therefore need highly developed interpersonal skills, so that students feel at ease and not intimidated by supervisory interaction.

Intellectual challenge is a high priority for many students and is an important part of the interaction, in addition to facilitating the production of an adequate thesis. Supervisors who are aware of this factor will endeavour to establish spontaneous dialectic where discussion and questioning can take place in a non-threatening but intellectually stimulating manner.

This aspect also requires excellent communication skills, so that supervisors can teach, question, clarify, explain, listen, understand, negotiate, and engage in challenge, all at the appropriate time, pace and place to fit the needs of students. Additionally, they need also to establish a level of rapport and closeness that is trusting enough to allow for challenging ideas and assumptions, to be heard, understood and responded to by students.

Regarding student emotionality, structures are needed to limit negative debilitating effects, so that students can progress through the thesis in a timely fashion. The supervisor appears to be of primary importance in providing help or support, emotional and practical, to encourage a student to stay on task, motivated to sustain efforts and not to lose time and lag. Therefore, through an understanding of the students’ experience, emotional state and particular aims, supervisory guidance may be more appropriate and efficient.

The importance of the supervisors’ availability was seen to be very significant in terms of students’ continual perseverance and learning, even more so than has been reported to date. (Powles 1989). It would seem that there is a need for mechanisms to be established whereby students do not feel abandoned for inordinately long periods of time, where they can access advice with relative ease.

Support for Supervisors

The increasing numbers and diversity of doctoral students as well as the increasing ratio of students to staff members in many faculties may be suggestive of less possibility for supervisors to cope with additional student needs. As a consequence of the factors mentioned above, supervisors may desire more support, both from the university and their
particular department, in assisting them to cater for the substantial personal, intellectual, academic and professional needs of their students.

The burden placed on supervisors who have large numbers of students, each of whom has a range of needs, some personal and some academic, can be overwhelming. This in part relates to the multitude of other roles academic staff members may be occupying.

Findings therefore point to an obligation for institutions to provide adequate support structures for supervisors, both practical and personal. The often substantial emotional content in the higher degree experience, and at times within supervision, imposes particular demands and potential strain on a supervisor. To support a student during times of reported ‘disillusionment, depression, or drowning’, may be emotionally demanding. The facility to communicate respect for students and validation for their work particularly at these emotionally laden moments is yet more complicated in practice.

Respect was found to be one of the interpersonal dimensions that students wanted to have for their supervisors and also to receive from their supervisors. Respecting a supervisor was predicated on supervisory knowledge and expertise and appeared fundamental to a worthwhile supervisory experience. Supervisors may therefore need to put aside their humility and learn how to project their expert power.

**Potential Supervisor Role Strain**

Supervisors require the ability to be simultaneously supportive, positive and encouraging yet honest, which may mean communicating a negative appraisal of students’ work. At such times supervisors may need to feel like they have enough departmental support to be able to convey the difficult message of poor quality work. Supervisors need skill, and occasionally help, to be able to provide an adequate balance of honesty and rigour together with support and encouragement. There are times therefore when supervisors may need supervision themselves, as do case workers, so that they are supported in coping with difficult and often contradictory roles.

The ratio of more students to fewer members of staff must inevitably result in less supervisory time, less active supervision and less possibility for personal relating and professional focus. Students already reported a feeling of inadequate supervisory time, availability and contact. How can they possibly feel and react if offered less?
Suggested therefore is that university departments would need to provide support structures for supervisors in their efforts to accommodate the interpersonal supervisory dimensions required. For example, to extend the range of opportunities for students’ intellectual challenge. The students’ need for challenge, together with their goals of personal and professional development, may be more demanding than one supervisor or even two supervisors can realistically cope with.

Conclusion

The present findings strongly affirm the importance of relationship in learning and in the research process, both as personal support, and intellectual challenge and growth facilitator. Consequently it would seem that rather than alter supervisory practices, a range of additional structures and supports would need to be in place to aid supervisors in their tasks.

The findings of this study emphasise the importance of the supervisory relationship from the perspective of students. Implicit in the very structure of supervision for higher degree students, reflective of the ancient master teacher model, is a social interactionist learning theory. It is a structure, which by its very nature implies learning through interaction, through the advice and guidance of a knowledgeable, experienced, facilitating expert, the supervisor or advisor. It is clearly a phenomenon of a researcher evolving through this kind of interaction.

Providing for the substantial needs of students for support and challenge, as discussed, would of necessity impinge heavily on the supervisors’ time, interpersonal skills, particularly communication skills, and professional abilities and networks.

While supervisors may be skilled professionals in their substantive areas of expertise they may need to enhance interpersonal and communication skills in order to cope better with these supervisory demands. In 1991, Moses identified supervisors’ need for support from the department and the institution, and it would seem that this is even more important now given broadening student cohorts and the need to be simultaneously rigorous, critical, intellectually challenging and supportive, encouraging, motivating and nurturing.
References


