

# *PhD supervision in the built environment*

Conference or Workshop Item

Accepted Version

Hughes, W. P. ORCID: <https://orcid.org/0000-0002-0304-8136>  
(2003) PhD supervision in the built environment. In: BEAR  
2003: Building Education and Research. Proceedings of the  
CIB W89 Symposium, 9 - 11 APR 2003, University of Salford.  
Available at <https://centaur.reading.ac.uk/12130/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

[www.reading.ac.uk/centaur](http://www.reading.ac.uk/centaur)

**CentAUR**

Central Archive at the University of Reading

Reading's research outputs online

# **PHD SUPERVISION IN THE BUILT ENVIRONMENT**

*Will Hughes, School of Construction Management and Engineering, University of Reading, PO Box 219, RG6 6AW, UK*

**Abstract:** The supervisor's precise role depends upon his or her experience. As a result, the quality of research supervision varies widely from one PhD to another. The purpose of this paper is to investigate PhD supervision issues with reference to the practices of various university departments in the Built Environment. Based on a survey of 70 research students, common practice is compared to published guidance about best practice in research supervision. The conclusions indicate that there is a high level of satisfaction among research students in this field and that most complete on time. Supervisors are eminent, knowledgeable and helpful. There are few non-construction graduates in this kind of research, little use of non-construction journals for source material and for publishing findings, leading to too much introverted research and publication. Generally, university support for research students is good, although training provision in research skills and transferable skills is patchy.

**Keywords:** PhD, research degrees, supervision.

## **INTRODUCTION**

At the end of 2001 there was a very interesting flurry of e-mails on the list for the Co-operative Network of Building Researchers. The exchange was prompted by an enquiry from a student that appeared to be nothing more than another appeal for information on his topic, asking if anyone had carried out a similar piece of work. My response to this was to ask whether supervisors were supervising properly, and that the student would be best advised to undertake a proper literature search, rather than relying on the good will of those who participate in e-mail lists. A few rejoinders to that message commented that it was the supervisor's job to make sure that their students sent out more informative and specific enquiries. One typical comment was "students are encouraged to exchange their ideas in the network but should not just ask for more before indicating what they have already learned". Some of the people who took part in the debate felt that students were being lazy in asking the whole academic community for help, rather than using the same few words in a search engine. Eventually, the debate spun off into issues connected with whether students could be perceived as customers, and little more was said about the role of supervisors in supervision. But the debate had raised some questions about differing expectations that people might have about the role of supervisors and about the quality of supervision in this field.

## **CONTEXT**

The process of research supervision is complicated and difficult. There are as many approaches to supervision as there are supervisors. It is clearly an interesting issue as the number of research projects into the PhD process testify (see, for example, Welsh 1980, Phillips 1983, Wright 1992). Although PhD student numbers appear to be on the increase generally, the position of research students within universities is often still marginal and the institutional support for them problematic (Pearson 1996). Pearson explains that research

and supervision are both highly individualistic and he examines the role of the PhD as a means for developing the professional practice of research and scholarship.

Kam (1997) describes supervision as an interactive process. Based on a survey with 150 responses, Kam concluded that there could be no set prescription for appropriate research supervision and that role expectations as well as the particular field of study all had a part to play.

Most books on research method say little about the role of the supervisor (Howard and Sharp 1983), but Howard and Sharp make clear that the supervisor should be expected to be eminent in his or her field and accessible. There is also a general message in most books about research projects that intermediate targets are a good idea and Hughes (2002) identifies a series of early targets such as an annotated bibliography, glossary of concepts and programme of work as being useful outputs. Clearly, the successful research student will also provide draft chapters for comment and at some point the administration of the process usually requires some formal transfer to PhD status. Phillips and Pugh (1994) provide more detail about the supervisors' expectations of their research students, and these include independence, written output better than first draft and regular meetings, among other things.

One other issue that often crops up in discussions of research in construction management is the question of whether it is a distinct academic discipline in its own right. I have argued elsewhere that construction management is a field of application for many different disciplines (Hughes 1999).

Construction-related departments and schools are no different from any other field, in one respect at least: in all disciplines there are frequent and regular problems connected with research degree supervision. Thus, a survey was distributed by e-mail to colleagues in the built environment field, asking them to pass the survey to as many of their PhD students as possible.

## **QUESTIONNAIRE SURVEY**

The questionnaire (reproduced in the Appendix) was designed to ascertain the views and experiences of research students in construction-related departments and schools, based upon the guidance reported above. One of the ideas to be tested was whether the quality and content of research supervision varies widely between PhDs and between Departments or Schools. One of the key ideas tested in this survey was whether a satisfactory PhD experience is associated with the provision of the kind of support envisaged in manuals and text books. Detailed questions were included to see whether research students routinely encountered the techniques identified in the literature on research supervision and management.

## **Results**

A total of 70 responses were received. The problem with distributing a survey through e-mail is that there is no reliable means for identifying how many people were contacted. The form was distributed through an e-mail list, the Co-operative Network of Building Researchers, which contained 1110 members at the time of writing. Although most of these members are not PhD students,

they are usually in Departments or Schools that have PhD students. As the e-mail message was passed from members to their PhD students, it is not possible to assess either the population or the return rate.

## Status

The majority of respondents are research students, with the remainder made up of university staff and 4 part-time research students working in industry (see Table 1).

Table 1: Respondents

Position	Total
Academic Staff	5
Practitioner	4
Research Staff	11
Student	50
Total	70

Table 2: Types of department/school

Type of department/school	Total
Architecture	3
Building	5
Built Environment	12
Civil Engineering	13
Construction Management	26
Engineering	4
Management	1
Psychology	1
Real Estate	4
Service Management	1
Total	70

Table 3: Country of study

Country	Total
Australia	7
Brazil	1
Canada	3
Hong Kong	4
Netherlands	2
Singapore	1
Sweden	2
Thailand	2
UK	44
USA	4
Total	70

Table 4: Progress by trimester

Trimester	Early	On time	Late	Total
First	1	6		7
Second	2	16	6	24
Third	5	8	5	18
Completed	6	9	6	21
Total	14	39	17	70

## Departments/Schools

The respondents are based in a variety of departments/schools. The naming of academic departments is not systematic and the resulting plethora of names for departments and schools provides little insight. However, it is possible group the departments in a more or less consistent way and the data in Table 2 show that most respondents are from the kinds of department that might be expected to be carrying out this kind of work. It is interesting that one respondent is from a management department and one from a psychology department. In fact, there are very few respondents in non-construction departments. There is no apparent reason for this number to be so low, given the issues that this research typically deals with. However, with the approach taken to distributing these questionnaires, it is no surprise to see that the majority of respondents are based in construction-related departments. It may simply be that those in non-construction departments have not received copies of the survey.

Table 5: Journals used as source material

<b>Journals read</b>	<b>Total</b>
Construction Management and Economics	39
Engineering, Construction and Architectural Management	24
ASCE Journal of Construction Engineering and Management	22
International Journal of Project Management	13
ASCE Journal of Management in Engineering	8
Building Research and Information	7
Journal of Construction Procurement	7
Facilities	6
Building and Environment	5
Harvard Business Review	5
Journal of Construction Research	5
Journal of Management Studies	5
Automation in Construction	4
Construction Innovation	4
Strategic Management Journal	4
Design Studies	3
IEEE Transactions on Engineering Management	3
International Journal of Construction Information Technology	3
Journal of Quality in Maintenance Engineering	3
Project Management Journal	3
Urban Studies	3
Administrative Science Quarterly	2
Architectural Science Review	2
British Journal of Management	2
European Journal of Purchasing and Supply Management	2
International Journal of Operations and Production Management	2
International Journal of Quality and Reliability Management	2
IT-AEC	2
Journal of Accounting Research	2
Journal of Knowledge Management	2
Journal of Operations Management	2
Journal of Personality and Social Psychology	2
Journal of Project Management	2
Journal of Property Research	2
Management Science	2
Property Management	2

### **Country of study and nationality**

Table 3 shows the range of countries from which responses came. More than half are from the UK, with the remainder spread through 9 other countries. Although respondents are studying in ten countries, they are from 32 different nationalities. Based on nationality and place of study, there was an exact 50-50 split between home and overseas students in the sample.

### **Progress**

The questions about start and end dates, and full-time/part-time status, enable a view to be developed about how far through the research each respondent is, and how early or late they plan to submit, or have submitted. These results are

Table 6: Journals targetted for publications

<b>Journals to publish in</b>	<b>Total</b>
Construction Management and Economics	38
Engineering, Construction and Architectural Management	17
International Journal of Project Management	14
Journal of Construction Procurement	7
Facilities	5
ASCE Journal of Management in Engineering	4
Automation in Construction	4
Construction Innovation	4
ASCE Journal of Construction Engineering and Management	14
Building and Environment	3
Building Research and Information	3
Journal of Construction Research	3
Journal of Management Studies	3
Architectural Science Review	2
Design Studies	2
European Journal of Purchasing and Supply Management	2
International Journal of Construction Information Technology	2
International Journal of Lighting Research and Technology	2
Journal of Property Research	2
Journal of Quality in Maintenance Engineering	2
Project Management Journal	2
Urban studies	2

shown in Table 4. All of those in the first year of their programme (or part time equivalent) plan to finish either early or on time. After that point, the distribution between early, on time or late, appears fairly consistent from the second trimester through to completion, although most in their second trimester still think they will finish on time.

## **Journals**

The survey sought the titles of the most important journals that PhD students used as source material and the titles that they would like to publish in. The reason for this was to dig deeper into the question of the discipline being applied to the research. In all but one case, the list in which they would like to publish was shorter than or the same length as the list of journals that they read. On average, they listed 5 journals as sources and 3 as destinations, and the list of journals in which they would like to publish was nearly always a shortlist of those that they read. Table 5 shows all those journals mentioned more than once in responses about source material. As such, this forms an interesting indication of how the discipline is perceived by those who seek to develop it.

In addition to the journals listed in Table 5, there were 137 other titles that were mentioned only once. On the question of journals in which research students would like to see their work published, most people listed fewer journals. Table 6 shows all those titles mentioned more than once. In addition to those listed, a further 66 titles were listed. The differences between Table 5 and Table 6 are slight.

Table 7: Frequency of supervision

Frequency	FT	PT	Total
More than weekly	4		4
Weekly	17	6	23
Fortnightly	10	4	14
Monthly	12	2	14
Quarterly	2	6	8
Rarely	1	5	6
(blank)	1		1
Total	47	23	70

Table 8: No of supervisors

No of supervisors	Total
1	29
2	25
3	11
4	1
5	3
50	1

## Supervision

The responses on the frequency of supervision have been banded and split by full-time, part-time students in Table 7. Some of the full-time students see their supervisors more frequently than once a week, but most see their supervisors each week or fortnight. A few full-time students see their supervisors quarterly or less. This would appear to be too infrequent by comparison with the rest of this group of respondents. The frequency of supervision for part-time student is surprisingly widespread, with a much greater proportion having rare encounters. Table 8 shows that most respondents have one or two supervisors. There were 11 respondents with three supervisors and a few with more. The student who claimed to have 50 supervisors probably mis-read the question!

When asked how many PhD students there were in the same Department or School, most respondents either did not know, or made it clear on their return that they were hazarding a guess. The responses varied from 1 to 150, but of those who provided a number, 25 said less than 20 and 12 said between 10 and 20. The responses to this question are too vague to provide anything useful, other than the fact that most students have little or no idea about how many others there are on the same course of study as them. This seems to be unsatisfactory, given that one of the things that Departments ought to be striving for is a sense of belonging and inclusion.

## Academic discipline

In asking about the theoretical basis of the study, the problems of terminology become very clear. First, it is very difficult to come up with a question that will elicit a straight answer about the theoretical basis of a study. Second, the names given to any particular areas of study vary widely. The result is that there are 127 different academic disciplines cited in these responses, from 70 PhDs, even though 33 name management and 9 economics as the basis of their research. This means that there is enormous diversity in the way that researchers are approaching problems in the construction sector. For the sake of brevity, only those items mentioned more than once are shown in Table 9. Of those omitted from the Table, it is interesting to note that they included Philosophy, Knowledge, Procurement, Manufacturing, Quality management, among others, indicating quite a wide range of views as to what constitutes an academic discipline.

## Research methods

The responses to the question about which research methods were being used elicited a list of 62 methods. The most commonly cited method was case study, closely followed by questionnaires and then interviews. Some respondents

Table 9: Academic discipline

Discipline	Total
Management	33
IT	11
Economics	10
Sociology	8
Construction	7
Psychology	7
Law	4
Architecture	3
Construction management	3
Building/construction economics	3
Civil engineering	2
Engineering	2
Mathematics	2
Business management	2

Table 11: Number of research methods

No of methods	Total
0	8
1	18
2	20
3	12
4	5
5	7

Table 12: Subject of first degree

First degree	No.
Architectural Engineering	1
Architecture	11
Building	3
Building Engineering	2
Building Management	2
Building Services Engineering	1
Building Surveying	1
Building Technology	2
Civil Engineering	17
Construction Management	4
Electrical Engineering	1
Engineering Project Mgmt	1

Table 10: Research methods used

Methods	Total
Case study	23
Questionnaire	19
Interview	8
Statistical analysis	6
Qualitative	5
Modelling	4
Not yet known	4
Survey	4
Interviews	3
Literature review	3
Triangulation	3
Action research	2
Artificial neural networks	2
Building occupants survey	2
Computational fluid dynamics	2
Conversation/discourse anal.	2
Focus group	2
Quantitative	3
Workshop	2

First degree (contd.)	No.
English Languages & Lit.	1
Estate Management Surv.	1
HRM	1
Landscape Engineering	1
Law	2
MBA	1
Mechanical Engineering	1
Political Science	1
Quantity surveying	9
Real Estate Management	1
Urban Studies	1
Blank	4

merely indicated a broad type of methodology, e.g. qualitative or quantitative. Three respondents mentioned triangulation, without mentioning which methods were being triangulated. 35 methods were mentioned only once, again omitted here for brevity, but they ranged from clearly defined methods such as social network analysis and wind tunnel testing to some extremely vague notions about methods such as analysis, reading, hypothesis testing, database design and so on. The methods cited more than once are listed in Table 10.

Table 11 shows the extent to which respondents used multiple methods: 8 respondents mentioned none; while 7 each mentioned 7 different methods in describing their approach in the briefest possible terms. Clearly, the usual thing is to use multiple methods, but few people use more than 3.

### Discipline of first degree

The topic of respondents' first degrees are shown in Table 12. About 10% of these are not construction-related vocational degrees.



Table 13: Views on supervisor

	Disagree				Agree			
	-3	-2	-1	0	1	2	3	
Overall, I am satisfied with my PhD experience	1	4	2	5	6	23	29	
My supervisor(s) give(s) me excellent feedback	3	2	0	2	10	23	30	
I find conversations with my supervisor(s) very stimulating	2	3	3	1	7	23	31	
My supervisor(s) know(s) the literature in my topic	3	4	3	4	9	25	22	
My supervisor(s) has/have published important papers in my topic	8	9	3	5	10	16	19	
My supervisor(s) help(s) me to meet other experts in the topic	5	3	5	7	7	15	28	
The comments I receive on my written drafts are very useful	1	1	4	8	7	16	33	

### Views on supervision and support

Respondents were asked a range of questions on how they felt about their supervision. Generally, responses were extremely positive, with very few negative views. For simplicity of presentation, the degrees of agreement or disagreement with the statements in the survey form have been interpreted as merely “yes” or “no”. Table 13 shows that the vast majority of research students is happy with the supervision, feedback, stimulation, supervisor’s knowledge of the field, and comments received on drafts that they write. The majority, although slightly smaller, is was happy with the supervisor’s publication record in the specific area and with the supervisor’s ability to introduce the student to other experts/practitioners.

Table 14 shows the general picture for output from research students. The typical research students had been involved in writing more than three conference papers and presenting around two. Interestingly, the average for the number of departmental seminar presentations is very similar to that for conference presentations. On average, apart from those who produce no papers, research students produce as many refereed journal paper as conference papers during their research. The averages in this table are calculated by ignoring those who entered 0 or left the answer blank. The column headed “yes” indicates the number of non-zero entries, but medians and modes are calculated including those who do not publish.

Table 14: Papers and presentations

Output	Yes	Average	Median	Mode
Journal papers	30	2.6	0	0
Conference papers	54	3.5	2	1
Conference presentations	56	2.6	2	1
Conference attendances	40	2.2	1	0
Departmental seminars	53	2.3	1	1

Table 15 shows the intermediate outputs that would be expected from a well-structured supervision. These questions asked for a Yes or No answer. Only 47 out of 70 respondents have produced an annotated bibliography and less than half a glossary of concepts. A programme, transfer report and draft chapters are more common, with a similar number for each. Breaking these numbers down by trimester (see Table 16), it is interesting to note that an annotated bibliography was produced only by two thirds of those who had completed their research degree. The proportions do not change a great deal

during the different phases of progress. Two thirds of those who had completed their work had never produced a glossary of concepts. At every stage in the process, the majority of students produce draft chapters. As would be expected, the proportion increases as the work progresses, but one of those who had completed had never submitted a draft chapter.

Table 15: Intermediate outputs

<b>Output</b>	<b>Yes</b>	<b>No</b>	<b>Blank</b>
Annotated bibliography	45	25	0
Glossary of concepts	33	36	1
Programme of work	54	16	0
Transfer report	50	18	1
Draft chapters	55	15	0

Table 16: Intermediate outputs related to progress

<b>Trimester</b>	<b>Ann Bib</b>	<b>Glossary</b>	<b>Programme</b>	<b>Transfer</b>	<b>Draft chaps</b>
First	4	4	5	3	4
Second	16	11	19	14	16
Third	11	11	13	17	15
Completed	14	7	17	17	20
Total	45	33	54	51	55

Finally, university support was examined. Most universities provide guidance about the process, but a significant number do not. And of those who do, of it is clear. A larger proportion provided training in research skills, and again most of it is useful. A much smaller proportion provides training in transferable skills. Some respondents annotated their responses with a note to say that they did not know what these were. Just about everyone has access to adequate computer equipment and sufficient space to work in. These results are shown in Table 17.

Table 17: University support

<b>Support</b>	<b>Yes</b>	<b>No</b>	<b>Blank</b>
University Guidance	48	22	0
Clear?	40	7	23
Training in research skills	54	16	0
Useful?	46	6	18
Training in transferable skills	21	48	1
Useful?	23	1	46
Computer equipment	64	5	1
Space to work	57	6	7

## **DISCUSSION**

It was stated in the introduction to the survey that one of the key ideas to be tested was whether a student's satisfaction with the PhD process was connected to the supervision experience and institutional support for research degrees. Fortunately for the discipline, but unfortunately for the analysis, 90% of the respondents were satisfied with the process and happy with the supervision and support that they got. The remaining seven respondents forms too small a sample from which to draw conclusions about the kind of support that they lacked.

Most research students in this sample are doing their research as students, rather than as staff. Half of the research students undertake their work in a foreign country. Two thirds of the research students finish their studies within the expected time period.

Overall, progress and timely completion seem good. This may be one of the biggest worries of PhD students on limited funding, or on grants that only last for a specific time, so it is reassuring to see that most complete within a reasonable time frame. The findings of research by Betts and Lansley (1993) into the bibliometrics of papers in Construction Management and Economics included the fact that papers in that journal increasingly referred to other papers in the same journal. This seems to be a problem likely to increase, judging by the approach of research students in this field, in that the majority use that same journal as both source material and for publication. Given that construction management problems are solved by applying research methods and techniques from more mainstream disciplines, there ought to be a wider spread of source journals for work in this field. On the other hand, the fact that nearly every respondent listed multiple journals may indicate that research students are indeed sourcing their material from diverse journals, so diverse, in fact, that only a few journals were mentioned more than once.

The diversity of responses about research method reinforces the idea that diverse approaches are being deployed. But nearly every PhD student comes with a first degree in a construction-related field, where many of these research methods do not form the basic material of an undergraduate course.

## **CONCLUSIONS**

Although the construction sector should provide interesting, researchable questions to a wide range of disciplines, respondents nearly all came from construction-related departments. They tend to focus on construction-related journals for their source material and for publishing their output. And their first degree qualification is typically in a construction-related topic. But the most common root discipline for research methods and techniques is management, closely followed by IT, then economics. In other words, research methods tend to be dominated by social science methodology, with case studies, questionnaires and interviews accounting for the majority of approaches. Thus, most of this work is basically social science in nature, but seems from this survey not to be properly grounded in social science roots, neither do the findings from these PhDs seem destined for social science journals. This is a problem that deserves attention.

Supervision tends to take place every week or two, with only a few of the part time students receiving less frequent supervision intervals. Given that most researchers are satisfied with the process, this supervision frequency must be about right. Similarly, the fact that most students are supervised by one or two supervisors is also appropriate. However, most respondents have little or no idea about how many other PhD students there are studying in the same place at the same time, indicating that they are unaware of belonging to a specific group, perhaps a symptom of marginalization.

One of the pre-requisites for PhD supervisors, identified in the literature, was eminence. Questions relating to the supervisors' publication profile and the

ability to introduce students to other experts were included to reveal something about this quality and respondents are generally clear that their supervisors are eminent and well-connected.

The output from research students is patchy. Less than half have published a journal paper, but of those who have, multiple papers are the usual. A large proportion of research students have prepared and/or presented conference papers, although departmental seminars are no more common than conference presentations. In terms of a structured approach to the mechanics of supervision and intermediate targets, annotated bibliographies, glossaries of concepts, draft chapters and programmes of work are only encountered in about two-thirds of cases, and the likelihood of their occurrence seems disconnected from the stage of the research.

Institutional support in terms of guidance and training is also inconsistent, and some student reported inadequacies in computer equipment and working space. But the general picture was very positive. Overall, the survey reveals a generally well-structured approach right across the board. There are few surprising discrepancies in practice and the expectations of students and supervisors do not seem widely different.

## **ACKNOWLEDGEMENTS**

I would like to thank all of those who helped to distribute the survey and those who took the time to respond. In particular I would like to thank Abbas El-Mualim, Scott Fernie, Alejandro Carvajal, Jim Chung Chin Kao and Graeme Larsen for their useful comments on early drafts of the questionnaire.

## **REFERENCES**

- Betts, M and Lansley, P R (1993) Construction Management and Economics: a review of the first ten years. *Construction Management and Economics*, **11**(4), 221-45.
- Howard, K and Sharp, J A (1983) *The management of a student research project*. Aldershot: Gower.
- Hughes, W P (1999) Construction research: a field of application. *Australian Institute of Building Papers*, **9**(51-58).
- Hughes, W P (2002) Supervisory practice for research students. *ARCOM Newsletter*, **17**(1), 1-2.
- Kam, B H (1997) Style and quality in research supervision: the supervisor dependency factor. *Higher Education*, **34**(1), 81-103.
- Pearson, M (1996) Professionalising Phd Education to Enhance the Quality of the Student Experience. *Higher Education*, **32**(3), 303-20.
- Phillips, E M (1983) *The PhD as a learning process*, Unpublished PhD thesis, University of London.
- Phillips, E M and Pugh, D S (1994) *How to get a PhD*. 2nd ed. Buckingham: Open University Press.
- Welsh, J M (1980) *The PhD student: process and problems*, Unpublished PhD thesis, University of Aberdeen.
- Wright, J (1992) *Selection, supervision and the academic management of research leading to the PhD*, Unpublished PhD thesis, University of Nottingham.

# Appendix: The questionnaire form

## PhD supervision in the built environment

### Where your PhD is (or was) registered

Name	
Position while registered	
Department/School	
Institution	
Country	
Your nationality	
<i>(Details of your specific responses will be kept confidential.)</i>	

### About your registration

When did you commence your PhD?	
What is your planned (or actual) completion date?	
Are you full-time or part-time?	
Approximately how often do you meet your supervisor?	
How many PhD students are there in your school/department? (It is likely that you do not know, in which case please say so)	

### About your PhD

How many supervisors are there in your supervision team?	
From which academic discipline(s) do you draw your theoretical framework? (e.g. management, economics, law, psychology, IT, sociology)	
What is the title (or working title) of your PhD?	
What methods are you using to solve the problem?	

What is the subject of your first degree?

<p><b>To help clarify the basis of your work, please list the most important journals in your research:</b></p> <p>Journals that you read for your research:</p>	<p>Journals in which you would like to publish:</p>
--	---

## About your experience of supervision

Please circle the number closest to the statement that matches your opinion:

Overall, I am satisfied with my PhD experience	3	2	1	0	1	2	3	Overall I am not satisfied with my PhD experience
I have one sole supervisor providing advice and supervision for my PhD	3	2	1	0	1	2	3	My PhD supervisor is one of several people that support my PhD work
The feedback I get from my supervisor(s) is not very useful	3	2	1	0	1	2	3	My supervisor(s) give(s) me excellent feedback
I find conversations with my supervisor(s) very stimulating	3	2	1	0	1	2	3	I do not feel stimulated by conversations with my supervisor(s)
My supervisor(s) know(s) the literature in my topic	3	2	1	0	1	2	3	My supervisor(s) do(es) not know the literature on my topic
My supervisor(s) has/have published no important papers in my topic	3	2	1	0	1	2	3	My supervisor(s) has/have published important papers in my topic
My supervisor(s) help(s) me to meet other experts in the topic	3	2	1	0	1	2	3	My supervisor(s) do(es) not help me to meet other experts in the topic
The comments I receive on my written drafts are very useful	3	2	1	0	1	2	3	The comments I receive on my written drafts are not very useful

## About your output

How many refereed journal papers have you published during your registration?	
How many conference papers have you published during your registration?	
How many conferences have you attended at which you presented your work?	
How many conferences have you attended without presenting your work at?	
How many departmental/school seminars have you presented your work at?	
Have you produced an annotated bibliography (yes/no)?	
Have you produced a glossary of concepts or terms (yes/no)?	
Have you produced a programme/schedule (yes/no)?	
Have you produced a transfer report or other interim report on progress (yes/no)?	
Have you written any draft chapters for your supervisor to comment on (yes/no)?	

## About your institution

Has your university provided guidance on what you can expect from your supervisor(s) (yes/no)?		If so, was this guidance clear?	
Have you taken part in any training courses about research skills (yes/no)?		If so, was this useful?	
Have you taken part in any training courses on transferable skills (yes/no)?		If so, was this useful?	
Do you have adequate access to general purpose computer equipment (rather than project specific equipment)?			
Do you have adequate working space within your Department/School for undertaking your PhD research work?			

Thank you for taking the time to complete this survey. Please e-mail your response to **w.p.hughes@reading.ac.uk**, or fax it to **+44 (0) 118-931 3856** before 16 Oct 2002.