Annual Seminar on Supervising Research Students
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Summarising your main concerns
from the survey

- Giving good guidance

- Having sufficient time

- Originality, relevance, coherence, logical ideas

- Getting students to respect deadlines

- Getting a thesis of acceptable quality without rewriting it

- The fact that I have never been trained for this (role).

- Not all supervisors know the criteria, particularly problematic if it emerges during co-supervision

- Giving good feedback

- Guiding but not taking over the lead

- Low levels of conceptualisation

- Dependent attitude of students 'oui maitre'

- Intercultural communication

- Poor standard of theses at ITM

Outline

- Some of the major influences on and changes in the research process,

- Similarities and differences between research at masters and doctoral levels

- Approaches to supervision: the research on effective supervision that has been carried out in the UK, Sweden, Australia and USA

- Giving feedback in mentoring and coaching situations

A very brief history

1150 First doctorates awarded in Bologna and Paris. Licence to teach.

1810 Berlin. Humboldt revolutionised the university as a centre for research.

1861 First USA PhD awarded at Yale

1946 Australia awarded its first PhD

1980s PhD prominent across W Europe

1990s PhD spread across E Europe

2009 50,000 PhDs awarded in China

2010 175 PhDs awarded in Estonia

(Adapted from Taylor, for University of Leeds)	Humboldtian	Post-Humboldtian
Student population	Elite but homogenous	Mass, diverse, international
Supervisor relationship	Master to apprentice	Student as consumer or co-producer
Length	As long as it takes	3-4 years
Focus of study	One part of a discipline	Multi-disciplinary, inter-disciplinary, collaborative
External involvement	Laissez-faire. Ethics led by the discipline	Bologna and many national QA systems.
Outcomes	Academic reproduction	Production of human capital for knowledge economics: skills agenda
Awards	PhD by Research	New routes eg professional doctorates
Funding	Mostly self-funded, some philanthropy	Political or commercial accountability

Some implications of the Bologna process

- Easily readable and comparable degrees and transcripts
- Uniform degree structures, i.e. a three year Bachelor award, two year Masters degree, and three year Doctoral programs
- A means of offering credits across countries so that one credit point would be of the same value in all universities in the countries involved in the agreement
- Increased mobility of students and staff due to increased alignment
- Promotion of European co-operation
- Promotion of a European dimension in higher education
- A form of quality assurance to enable European awards to be internationally recognized

Criteria for a good masters thesis

from the survey

- Clear and appropriate hypothesis or research question. Well described objectives
- Logical structure
- Comprehensive literature review
- Using proper research methodology
- Clear and concise research methods description
- Clear and objective results
- Discussion presents all relevant conclusions
- Relevant references consulted
- Ethical standards respected
- Candidate confident and well organised
- Evidence of ownership of the report
- Concise
- Starts from the experience of the student in the field
- Use of higher cognitive skills (analysis, synthesis and evaluation)
- Independent learner who uses the feedback

How do students know this and does this compare with the Institute's marking criteria?
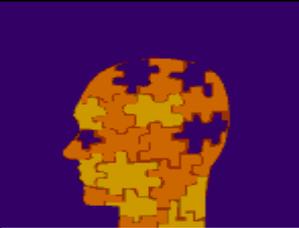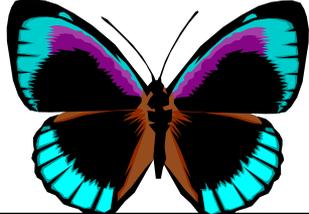
My original research questions

- What conceptions of supervision do supervisors hold?

- Is there any relationship between the conceptions of supervision and the jobs that their research graduates subsequently undertake?

- What are the common problems faced?

- What training for supervisors, if any, is undertaken or might be helpful

Contrasting approaches

- Functional/Technical-rational model (Acker in Wisker 2005, Eley and Jennings 2005, Taylor and Beasley 2005)

- Metaphors: apprenticeship, mentoring, master-slave (Grant 2005, 2008, Pearson & Kayrooz 2004, Brew 2001)

- Qualities approach (Wisker 2003a, Zuber Skerrit & Roche 2004)

- Communities of practice, Enculturation (Lave and Wenger 1991, Pearson & Brew 2002)

- Micro and macro environments, 'nests of influence' (Lovitts 2008, McAlpine and Norton 2006)

- Feminist objective 'fully integrated self' (Firth and Martens 2008, Leonard 2001)

- Research vs Pedagogy continuum; (Green and Powell 2005: 153,)

- Matrices (Gatfield 2005, Murphy et al 2008)

- techne, scholarly expertise, habits of the mind, contextual expertise, learning alliance, Halse and Malfoy 201020

A framework for concepts of research supervision

	Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Supervisors Activity	Rational progression through tasks Negotiated order	Gatekeeping Master to apprentice	Evaluation Challenge	Mentoring, supporting constructivism	Supervising by experience, developing a relationship
Supervisor's knowledge & skills	Directing, Project management	Diagnosis of deficiencies, coaching	Argument, analysis	Facilitation, Reflection	Managing conflict Emotional intelligence
Possible student reaction	Organised Obedience Negotiation skills	Role modelling, Apprentice-ship	Constant inquiry, fight or flight	Personal growth, reframing	A good team member. Emotional intelligence

Functional approach

- *"I have a weekly timetabled slot for them and follow up if they do not turn up."*
- *"I tell them they have 3 months to do the literature search, by 6 months the focus should be fixed and by 12 months the transfer report should be completed."*
- *"At the end of the first year their annual report is assessed by an independent examiner."*
- *"In the second year we see them monthly and they present 5000 words before each meeting."*
- *"We have agendas for supervision meetings planned a year ahead."*
- *"I keep documentary evidence and follow up if they don't write about what we have agreed."*
- *"We also insist they keep log books, which from time to time we sign off on."*

Further examples of the functional approach

- *"I am proactive about regular meetings, we end each one by planning the next session, or agreeing when we are going to arrange it "*

- *"I get students to write a record at the end of each meeting and to send it to me within a week – so that everyone is clear about what has to be done by when."*

- *"In Feb of year 1 they have to make a 15 minute presentation to the whole department (faculty + research students), they write it up and submit it by April. Independent reviewers make formal recommendations about whether to progress that person to the next year."*

- *"The Annual Review is conducted by a panel of two faculty members (not the researcher's supervisors). This means each member of staff does no more than three panels.   The school's pro-forma is completed independently by the supervisor and researcher – they do not see each other's reports. "*

- *Over time I have become more methodical and systematic, I find I improvise less"*

QAA Quality Code Ch. B11 (2012): Indicators require that universities:

1. Have clear regulations supplemented by subject specific advice
2. Up to date and communicated codes of practice
3. Monitor provision against internal and external indicators
4. Accept research students only into excellent research environments
5. Have clear admissions procedures
6. Provide training for staff in selection and admission
7. Clearly define student responsibilities and entitlements
8. Provide students with relevant induction
9. Appoint supervisors with appropriate skills and subject knowledge
10. Appoint a supervisory team for each research student
11. Communicate responsibilities of supervisors
12. Give supervisors sufficient time to supervise
13. Have clearly defined monitoring procedures and give timely feedback
14. Give students opportunities to develop research, personal and professional skills
15. Have open programme evaluation mechanisms in place
16. Assessment criteria are clear and available to all
17. Assessment procedures include external examiner input
18. Have independent and formal complaints and appeals procedures

Enculturation

- *"My students all know their academic grandfather"*
- *"Students need to know what 'good enough' looks like"*
- *"I believe they need to get in the lab straight away, they learn more by doing practical work, then they will appreciate the literature. Initially I suggest tasks and introduce them to the technical staff and lay out what I want them to get started on."*
- *"I tell them: you will spend a lot of time working on your own, so developing your network is very important. Come to the research seminars, be seen around, get to know the faculty and the research process"*
- *"I get them to do conference presentations and write proceedings, I go with them if its their first time."*
- *"We work hard to help them create their identity as researchers."*
- *"It's useful at the end of the second year, to identify the good students and encourage potential PhD candidates to approach them."*

- *Cultural issues can cause problems. For example a student who got their MSc in the States expected their supervisor to do the same for them as (they had experienced) in the US*
- *You need frequent meetings for international students*
- *The international student especially can implement all your corrections and think that is good enough.*
- *Some cultures expect you to tell them what to do*

Critical thinking

- *"They need to explain to me: why, what and how."*
- *"I use 'magic' words to help them identify the thread in their argument eg 'conversely' 'unanimously', 'essentially', 'early on', 'inevitably', 'arguably' etc."*
- *"An excellent thesis is written in a crystal clear fashion ….one which at every point explains and justifies what they have done. A weak thesis describes procedure but does not justify it."*
- *"At the end of the process I want the student to have the maturity to know whether an idea is worth following or not."*
- *"I expect them to learn how to start into something totally new…one of the things you learn doing a PhD is to think of a new experiment, to design a new experiment and carry it out, and then defend your result by publication and talks to your colleagues."*
- *"I want them to stand on their own feet and challenge the (established) thinking."*
- *"I avoid dependency by getting them to think about some problems and giving them resources."*

Further examples of critical thinking when planning a selection process

- *"I never pursue a research enquiry if they don't come with a research proposal…it will be amended over time but I need to see some baseline ability to be able to judge all applicants from."*

- *"I do not recruit students about whom I have serious doubts, if they have poor writing skills we won't admit them to the programme."*

- *"I have one student with a background in PR, he writes splendidly but not as an academic or discursively – we tackle this in detail through supervision sessions."*

- *"I spend a great deal of time with good applicants for scholarships, even if they don't get them, the can still become very good candidates and they may find other sources of funding."*

Emancipation

- *"I warn them that this (process) is a psychological as well as an intellectual test"*
- *"I want to know what their connection is with the research, why are they asking this question. For (student x) it was quite existential."*
- *"You act as a bridge between the knowledge and the student and eventually they don't need you."*
- *"Your job as a supervisor is to get them knowing more than you."*
- *"I try to get them to admit and confront their problems"*
- *"You get a lot of satisfaction in facilitating that growth in them"*
- *"I try to get students to take the initiative"*
- *"My supervisor encouraged me to read widely whilst thinking critically and to find examples in newspapers"*
- *"I am always waiting for that epiphany moment when they say 'no, I don't agree'."*

Further examples of emancipation

- *"I realise now that not everyone can be a professional physicist, and its good to have people who are good at physics in other careers – it speaks well for the discipline."*
- *"I start talking about careers early on."*
- *"I tell them 'This is not the start of your research degree, this is the start of a research career. Even if you do not think you will want to become an academic, to give yourself that option, you need to start as if you do"*
- *"You should start thinking about your next job from now: design a project that is attractive, thinking about how and where it will be published, publishing before you submit…."*
- *"You need a dedicated supervision session on career development, helping them to put their CV together, thinking about applying for post-doctoral positions and talking about how to apply for jobs."*
- *"I prioritise preparing people for their future – their professional development"*

Developing a relationship

- Enthuse: *You need to fire the imagination, it is different for different students*

- Altruism: *My supervisor helped me with my writing but never pressed me to publish.*

- Encourage: *Need to inspire and encourage them to be brave in what they are thinking*

- Recognise achievement: *I wanted to call my supervisor the moment I solved the tough maths*

- Pastoral support: *this was as important as intellectual support to get me through*

- Enduring: *And I try to coach them in their future career. It doesn't stop, you know, it doesn't stop with them leaving my group and me giving them their PhD degree*

Relationship development

- *"I hate conflict, I just try to rationalise things and … see to what extent I can take away the emotions"*

- *"I want to make sure they have a good time"*

- *"I wish supervising was more like the critical thinking model, then it would hurt less when they stab you in the back."*

- *"When (student) arrived he was ill, then his father died, then his wife went into hospital, then got pregnant and depressed … children demanded attention… it all happened to one person, it was traumatic for me too"*

- *"You have a duty of care to the student, if things start drifting you have to start pointing out the consequences and make it clear that you are not going to recommend them for registration"*

- *"You have to protect yourself and be objective. You have to say 'this is what I can realistically do' and not torture yourself if you cannot do more"*

	Function	Enculturation	Critical thinking	Emancipation	Relationship Development
ENGINEERING	XX	XX	X		X
ENGINEERING	X	X	X	X	O
SCIENCE	XXX	X	X		X
SCIENCE	XXX	XXX			O
TECHNOLOGY	XX	XX			
COMPUTING	X	X	X		XX
SOCIOLOGY				XX	XX
PSYCHOLOGY	XX	XX	X		
ECONOMICS			XX		X
PHILOSOPHY	X		XX	X	O
MANAGEMENT STUDIES	X	X	XX	X	
MANAGEMENT STUDIES	X			XX	XX

Distribution of statements relating to concepts

This was the first 12 from whom the framework was derived, it has subsequently been tested and refined with some 200+ people.

KEY

x	Statement of approach clearly attributable to this category
O	Negative experience as a student
x	Positive experience of category as a student

Advantages and Disadvantages

	Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Advantages	Clarity Consistency Progress can be monitored Records are available	Encourages standards, participation, identity, community formation	Rational inquiry, fallacy exposed	Personal growth, ability to cope with change	Lifelong working partnerships Enhanced self esteem
Disadvantages	Rigidity when confronted with the creation of original knowledge	Low tolerance of internal difference, eg. sexist, or ethnicised regulation (Cousin & Deepwell 2005)	Denial of creativity, can belittle or depersonalise student	Lack of focus Toxic mentoring (Darling 1985) where tutor abuses power	Potential for harassment, abandonment or rejection

Dependence and independence

	Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Dependence	Student needs explanation of stages to be followed and direction through them	Student needs to be shown what to do	Student learns the questions to ask, the frameworks to apply	Student seeks affirmation of self-worth	Student depends on supervisor's approval
Independ-ence	Student can programme own work, follow own timetables competently	Student can follow discipline's epistemolog-ical demands independen-ly	Student can critique own work	Student autonomous. Can decide how to be, where to go, what to do, where to find information	Student demonstrates appropriate reciprocity and has power to withdraw

Can this apply to teaching postgraduate students?

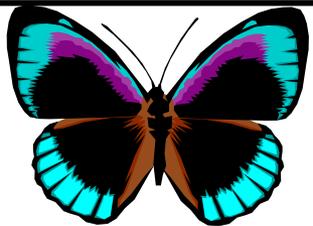|	Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Are these the skills of teaching at masters level	Curriculum design Lecturing and small group teaching/ tutoring skills Giving feedback and assessment Quality assurance	Induction of students Organising departmental seminars, and conferences Finding and sharing examples of good practice in the discipline	Giving students the tools for self and peer assessment Comparing the criteria for validity in own subject with others Attending/ organising journal clubs	Introducing research in the curriculum. Supporting enquiry-based learning Engaging with personal development planning Encouraging metacognition and reflection	Participating in and, initiating social events Reflection on appropriate self-disclosure and boundaries Skills in managing conflict

Applying the framework further?

	Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Role of the lecture	Logical giving of information	Introduction of key texts and people	Explain how to evaluate, validate and challenge	Point to sources of information	Welcome Create learning partnerships
Underlying approaches to teaching	Prescriptive, possibly didactic	Inclusive, participatory, demonstrating good practice.	Analytical, theoretical, conceptual	Enabling, empowering	Friendship, altruism, co-inquirer
Core beliefs about learning and knowledge	Learning is about the accumulation of knowledge	Learning is engaging in academic/professional/disciplinary practices	Learning is about developing cognitive skills	Learning is about discovery	Learning is about shared development

Core beliefs and values

	Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Beliefs about how people learn	Absorbing Regurgitating	Emulating Replicating	Theorise Analyse	Discovery Constructivism	Being affirmed
Values	Performativity	Belonging	Rigour	Autonomy	Love Agape

What do students want? Identifying student motivation, objectives and needs

	Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
What students might be seeking	Certainty Clear signposts Evidence of progress	Belonging Direction, Career opportunities, Role models	Ability to think in new ways Ability to analyse, to recognise flaws in arguments	Self awareness Autonomy Self actualisation	Friendship Nurturing Equality

Typical case studies have included:

- Approaches to recruiting students
- Planning for the first meeting
- Managing the student who consistently delivers work late
- Supporting the student who is facing burn out
- Helping the student whose work is not yet at the level expected
- Approaching the student who seems unable to focus – they are like a butterfly changing their ideas all the time
- Supervising the student whose experiments are not working, when you know the method is ok
- Managing the student who is demotivated
- Helping the student with their academic writing
- Working with a student where plagiarism might be an issue
- Managing larger groups of research students

Examples: Approaches to recruiting research students

Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
• Well organised recruitment procedure. • Specific competencies and experience identified/listed • Looking for a track record of work production on time. • Funding for fees and living expenses ascertained. • University resources needed identified.	• Take account of references and recommendations • Will they fit in the team? • Identifying an encouraging undergraduates/previous students • Look at their intellectual family tree – where do they come from?	• Listen to the types of questions they ask • Are they able to challenge things you say? • Their history of resolving problems? • Exam results • Give them a paper to critique • What is their reaction to receiving	• Let them find you, the student needs to be actively seeking • Make them convince you to take them on • Assess their ability to work independently	• Looking for enthusiasm, honesty and trustworth-iness. • What are your values, do they match? • Social events?

Examples: Approaches to inducting research students

Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Have a learning contract Have an analysis of their learning needs Discuss all the learning resources available to them. Talk about what deadlines and milestones the process involves, and identify what is next.	Introduce to key people and texts Encourage (and monitor) making of networks Involve in departmental seminars Have a question and answer session with recent research graduates	Look at criteria for success Analyse the structure of existing successful theses Do preparatory exercises on critical thinking to help them identify fallacious arguments and create propositions	Get them to form cohort groups for action learning and support Help them to analyse how they work best	Fill in an expectations questionnaire with them, compare and discuss. Have coffee (see journal article) Hemer S R (2012): Informality, power and relationships in postgraduate supervision: supervising PhD candidates over coffee, Higher Education Research & Development, 31:6, 827-839

Examples: Getting the student to respect deadlines

Functional	Enculturation	Critical Thinking	Emancipation	Relationship Development
Set small clear tasks Monitor Diarise time to send reminders Do a project plan, include contingency time Do a risk analysis Send them on a time management course	Report on deadlines to the whole group Get people to critique each others work	Analyse whether or not deadlines are important Do a risk analysis Analyse what the problem is	Let the student fail Explore what happens if they keep not meeting deadlines	Encourage Reward Explain how you manage your time when in difficulty

Mentoring and coaching skills

MANAGING	COACHING	MENTORING/ COUNSELLING
Organisational goals	Skill building	Transformation, emancipation
Assesses a problem in a wider context	Defines the problem	Listens and clarifies as student/client defines the problem
Consults to create the best fit solution	Proposes a solution, oversees remedial action	Helps student/client explore all aspects
Project management	Oversees performance, gives feedback	Promotes consideration of implications
"We are expected to"	"I know best"	"I will try to help you work it out for yourself"

Characterised by tactics	**Characterised by intent**
• Invite self-assessment	DIRECTIVE
• Feedback sandwich	• Prescriptive
• Focus on the behaviour not the person	• Informative
• Be timely	• Confronting
• Be specific and clear	
• Use 'I' rather than 'you'	NON DIRECTIVE
• Prepare for defensiveness	• Cathartic
(Oxford Learning Institute)	• Catalytic
	• Supportive

(J. Heron 'Skilled Helper)

Six Category Intervention: characterised by intent

DIRECTIVE

- Prescriptive *"you should try doing it this way.."*
- Informative *"these courses are available…"*
- Confronting *"it seems important that we address.."*

NON DIRECTIVE

- Cathartic *"you looked thoughtful when you said x, what was on your mind then?"*
- Catalytic *"how would you make that work?"*
- Supportive *"this is a terrific piece of work"*

(J. Heron 'Skilled Helper)

Confronting interventions

- **Supportive of the person: whilst describing that person's distorted behaviour**

- **Tells an uncomfortable truth, but does so with love. Is not combative or aggressive**
  - **Accurate content**
  - **Between pussyfoot and sledgehammer**
  - **Client ready to hear**
  - **It is possible for client to do something about it**

Making effective confronting interventions

- Identify the agenda
- Explain how you see client falling foul of this agenda (without being moralistic)
- Explain why you think it is appropriate to raise this matter now
- Give the client plenty of time to react
- Follow through – seek to help the client to find a way of dealing with it