Developments in postgraduate education and their implications for research supervision

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The proposition

- There is a pedagogy of supervision
- That it has relevance for other levels of the curriculum
- That this pedagogy of supervision provides an entry point for academic to become involved in the scholarship of research, teaching and learning

1. Explore a conceptual approach to doctoral supervision
2. Look at some ways that this applies to other levels of the curriculum
3. Discuss some approaches to developing supervisors

Through the maze

- Global competition for postgraduates
- Bologna
- Effects if student fees/funding
- Salzburg principles
- Publication/ref pressures
- ‘New route’ PhDs
- Growth of cross-discipline and interdisciplinary work
- Growth of part-time students and lifelong learners

A framework for concepts of research supervision

	Functional
Supervisors Activity	Rational progression through tasks Negotiated order
Supervisor's knowledge & skills	Directing, Project management
Possible student reaction	Organised Obedience Negotiation skills

Functional Approach

- *"The plan is*
  - *3 months: literature search*
  - *6 months: focus fixed*
  - *12 months transfer report completed.."*
- *"In the 2nd year we see the, monthly and they produce 5000 words before each meeting"*
- *"We have regular pair or small group meetings with the supervisor to present findings"*
- *"I have a weekly timetabled formal slot for them and follow-up if they do not turn up"*
- *" We have agendas for supervision meetings planned for a year ahead"*

Functional Approach

“At every meeting we used to write up notes, we would both sign them and I would give them a copy. So the idea was that we had a common understanding of what we talked about”

Functional Approach

“We started to use words about ‘slowing down’ and only writing two hundred words a day (rather than 2,000 words). I would say to her “I want two hundred words of good stuff” or “we don’t want any other chapters, we just want this chapter revamped, we don’t want to see anything else and if you send it to us we will send it back unread”. It became very directive because she was not hearing what we said

Functional Approach

"… we also insisted they kept log books, which from time to time we would sign off on. Most of the formalities were really only needed in the first year to 18 months, because after that students had adopted a practice that was so well based I'm sure they probably still do so today".

Functional Approach

“I think they find the direction difficult, that I have been so directive. I think they thought that they could swan in and wander around the literature for a bit and do what they liked ….. so I have insisted that they are here 9am-5pm five days a week”.

(Soft applied)

A framework for concepts of research supervision

	Functional	***Enculturation***
Supervisors Activity	Rational progression through tasks Negotiated order	Gatekeeping Master to apprentice
Supervisor's knowledge & skills	Directing, Project management	Diagnosis of deficiencies, coaching
Possible student reaction	Organised Obedience Negotiation skills	Role modelling, Apprentice-ship

Enculturation

- *I would feel that I had failed if they did not stay in the field*
- *My students all know their academic grandfather*
- *Students need to know what 'good enough' looks like*
- *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*

Enculturation

“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 will suggest tasks and introduce them to the technical staff and lay out what I want done to get them started”.

Enculturation

"… there was a post doc who broke the rules that I had never explicitly formulated, (about) a collaborative rather than competitive atmosphere… where you share results and resources and, and you don't, for example, take other peoples' results and publish them separately.

Yes; (that) …. Upset many people in the group.. Probably the most important rule is everybody should be in line with the common good of the group; never put their own interests ahead of that of the group".

Helping students to become a member of the discipline

- Encourage the student to read the biographies of significant academics in your discipline
- Encourage or establish teams for student who normally work solo, use the seminar to encourage team building
- Encourage students who work on theoretical codes to work with teams on applications
- Empower doctoral students to invite guest speakers and organise colloquia
- Create together ‘the list’ of essential works to be mastered
- Encourage teaching undergraduates or masters students as a form of studying
- Arrange for students to present arguments/papers to colleagues in your own discipline.. and to another discipline
- Establish journal clubs to encourage sharing, develop critical analysis and consolidate new knowledge

A framework for concepts of research supervision

	Functional	***Enculturation***	***Critical Thinking***
Supervisors Activity	Rational progression through tasks Negotiated order	Gatekeeping Master to apprentice	Evaluation Challenge
Supervisor's knowledge & skills	Directing, Project management	Diagnosis of deficiencies, coaching	Argument, analysis
Possible student reaction	Organised Obedience Negotiation skills	Role modelling, Apprentice-ship	Constant inquiry, fight or flight

Critical Thinking

- *“They need to explain to me why, what and how”*
- *“I ask them to email me a question about their project every week”*
- *“I use ‘magic’ words to help them identify the thread in their argument e.g. arguably, conversely, unanimously, essentially, early on, inevitably etc”*
- *“My tutor was not confrontational, she encouraged me to be critical of my own ideas”*

Critical Thinking

“ A good thesis is one which at every point explains and justifies what they have done.

A weak thesis describes procedure but does not justify it”

Critical Thinking

“ I expect them to learn how to:
…. learn,
…. reason,
…. start into something totally new…..

So I really want them to have an independence, an ability to step into the unknown and make a contribution to knowledge and society.

Critical Thinking

“you learn on a PhD to:
-think of a new experiment,
- design a new experiment and carry it out, and
- defend your result by publication and through talks with your colleagues

And these are skills you can use in many disciplines, in many different environments.. from academia to industry to government jobs or venture capitalist, to finance, you name it.”

Critical Thinking

- DESCRIPTION
- SELECTION
- REPRESENTATION
- INFERENCE
- SYNTHESIS
- VERIFICATION

(Donald 2002 pp 26-27)

A framework for concepts of research supervision

	Functional	***Enculturation***	***Critical Thinking***	***Emancipation***
Supervisors Activity	Rational progression through tasks Negotiated order	Gatekeeping Master to apprentice	Evaluation Challenge	Mentoring, supporting constructivism
Supervisor's knowledge & skills	Directing, Project management	Diagnosis of deficiencies, coaching	Argument, analysis	Facilitation, Reflection
Possible student reaction	Organised Obedience Negotiation skills	Role modelling, Apprentice-ship	Constant inquiry, fight or flight	Personal growth, reframing

Emancipation

- *“Your job as a supervisor is to get them knowing more than you”*
- *“I try to get the students to take the initiative”*
- *“My supervisor encouraged me to read widely, think critically, find examples in newspapers”*
- *“I try to get them to admit to and confront their problems”*
- *“ You get a lot of satisfaction, you have facilitated that growth in them”*

Emancipation

*“And I thought he would be the **perfect** faculty member so when he announced to me he was to go into Management Consulting, I was totally flabbergasted. I was shocked and I worked a little on him. I tried to say: ‘you should really go into academia, you should go into academia’. Then I realised that he had his mind set”.*

Emancipation

“But I’ve learnt to respect people’s career choices. I realise that not everybody can become a professional physicist and it’s good to have people who are good at physics in other careers. It speaks well for the discipline. So I’ve totally changed my opinion now”.

Emancipation

“I want to know what their connection is with the research, why are they asking this question. For this student it was not external research, it was quite existential”.

Emancipation

- *“I act as a bridge between the knowledge and the student and eventually they don’t need me”*

- *“I am always waiting for that epiphany moment when they say ‘no I don’t agree’.”*

Emancipation

- *“At the start you know a little bit more than them, but not much. Your job as a supervisor is to get them to the stage of knowing more than you”*

- *“I want it to have changed how they see the world”*

- *“Very few of my students are doing it for an academic career, they want the intellectual rewards”.*

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

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*

Developing a relationship

“The pastoral support of the supervisors was really important. I remember being surprised at how helpful they were. This was as important in helping me to get through as any intellectual support” (student – social sciences)

Developing a relationship

“I always say to them: ‘you will go through a love-hate relationship with me. It will probably be more hate than love most of the time, but if we can come out of it at the end still talking to each other, possibly even friends or colleagues in the future, that for me is a good outcome’.”

Developing a relationship

“Perfect friendships are based on goodness and are obviously the most valuable; here friends care more about the other person than they care about themselves. Moreover it means liking the other person for what he/she is, not for any incidental quality that they might possess such as beauty… Such friends have similar attributes and such friendships only occur after a long while. Finally there are few truly good friendships for there are few truly good people”
(Vardy & Grosch 1999 pp32-33)

Some Boundaries

- "The power dynamic between supervisor and student makes friendship difficult" (Ives and Rowley p 536).
- *"I think we probably say if you have got problems with your family then that is not really a University responsibility. We might point out to them that's the issue, (if there are issues around that area), but there is not a lot we can do about it. What we can do, from within the University framework, is to make sure that these issues are acknowledged".*

(Soft applied)

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, sexist, ethnicised regulation (Cousin & Deepwell 2005)	Denial of creativity, can belittle or depersonalise student	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

Links to conceptions of research

(Brew 2001, Lee 2008)

	Functional DOMINO	Enculturation TRADING	Critical Thinking LAYER	Emancipation JOURNEY	Relationship Development
IN THE FORE-GROUND IS:	Solving problems in a linear fashion	Publications, grants, social networks	Data is linked together with hidden meanings	Personal existential issues, linked to career	
RESEARCH IS:	Process of problem-atising or solving problems	A market place for exchanging ideas	Discovering hidden meanings	A personal transformative journey	

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

	Functional
What students might be seeking	Certainty Clear signposts Evidence of progress

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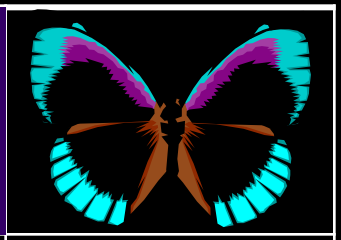
	Functional	**Enculturation**
What students might be seeking	Certainty Clear signposts Evidence of progress	Belonging Direction, Career opportunities, Role models

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

	Functional	**Enculturation**	**Critical Thinking**
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

What do students want? Identifying student motivation, objectives and needs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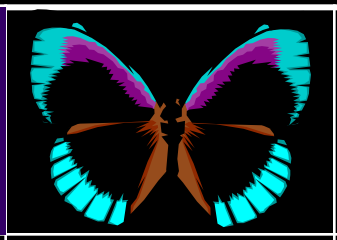
What do students want? Identifying student motivation, objectives and needs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Some Influences on Supervision

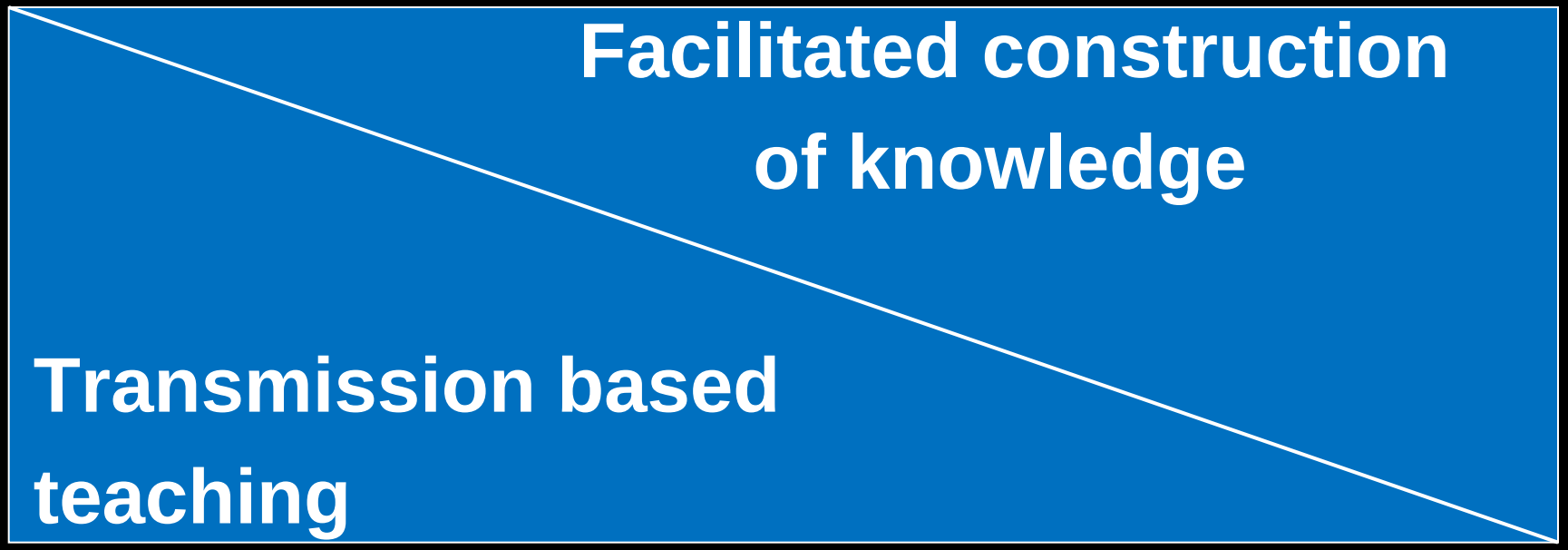
- Disciplinary pedagogy
- Departmental practices
- Conceptual approach of supervisor
- Codes of practice
- Employers/funders' requirements
- Full or part time students?
- Experienced or inexperienced students?
- International or home students?
- PhD, professional or practitioner doctorate?
- Supervisor/co-supervisor

Implications for the curriculum

- ‘Original research at doctoral level
- Mastery of research skills at masters level
- Research projects and enquiry-based learning at undergraduate level

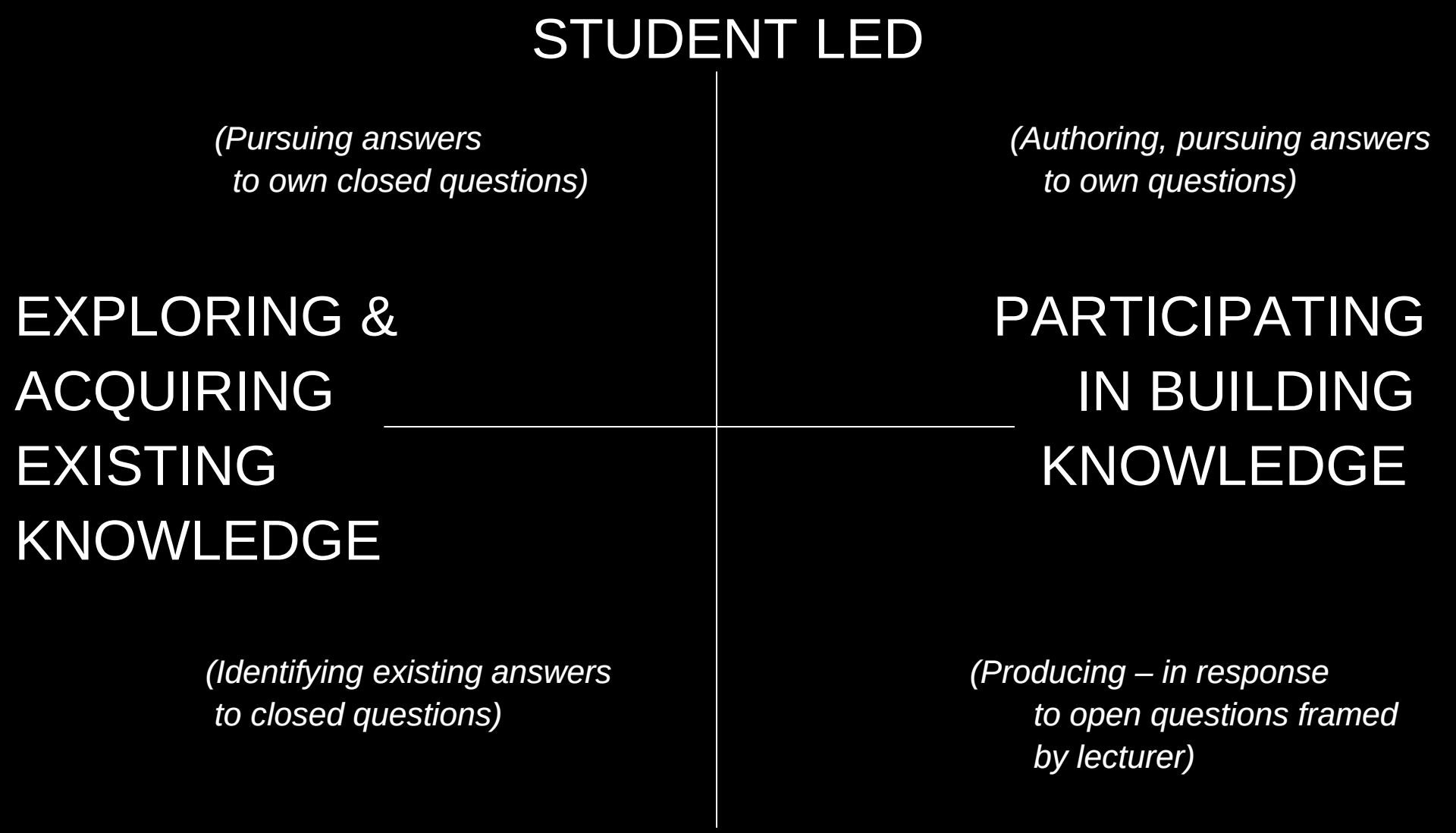
Implications of moving to enquiry-based learning

Student creates the knowledge



Lecturer creates the knowledge

Inquiry-based learning: a conceptual framework Healey & Jenkins 2009: 26



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

Possible elements of a supervisory development programme

Enticement

Strategic relevance for university and to CPD framework/values

Clear aims and evidence of learning

Good facilitation encouraging openness and trust

Stimulating, scholarly inputs

Some options for developing supervisors

- ***Action learning sets (cf Balint Groups)***
- ***Workshops (eg Leeds Met, Edinburgh, University of Surrey)***
- ***Residential courses (eg Missenden Centre)***
- ***Scholarly seminars (eg Portsmouth)***
- ***Researching and reflecting on good practice (eg Brew and Peseta 2004).***
- ***Involvement in developing/updating policy***
- ***Developing a bank of case-studies – (eg Forum Theatre at the University of Umea)***
- ***Mentoring programme (QAA code of practice) and opportunities for individual support***
- ***Accredited and assessed programmes (eg SEDA, HEA or part of PGCert/PGCAP)***

Observations on developing supervisors

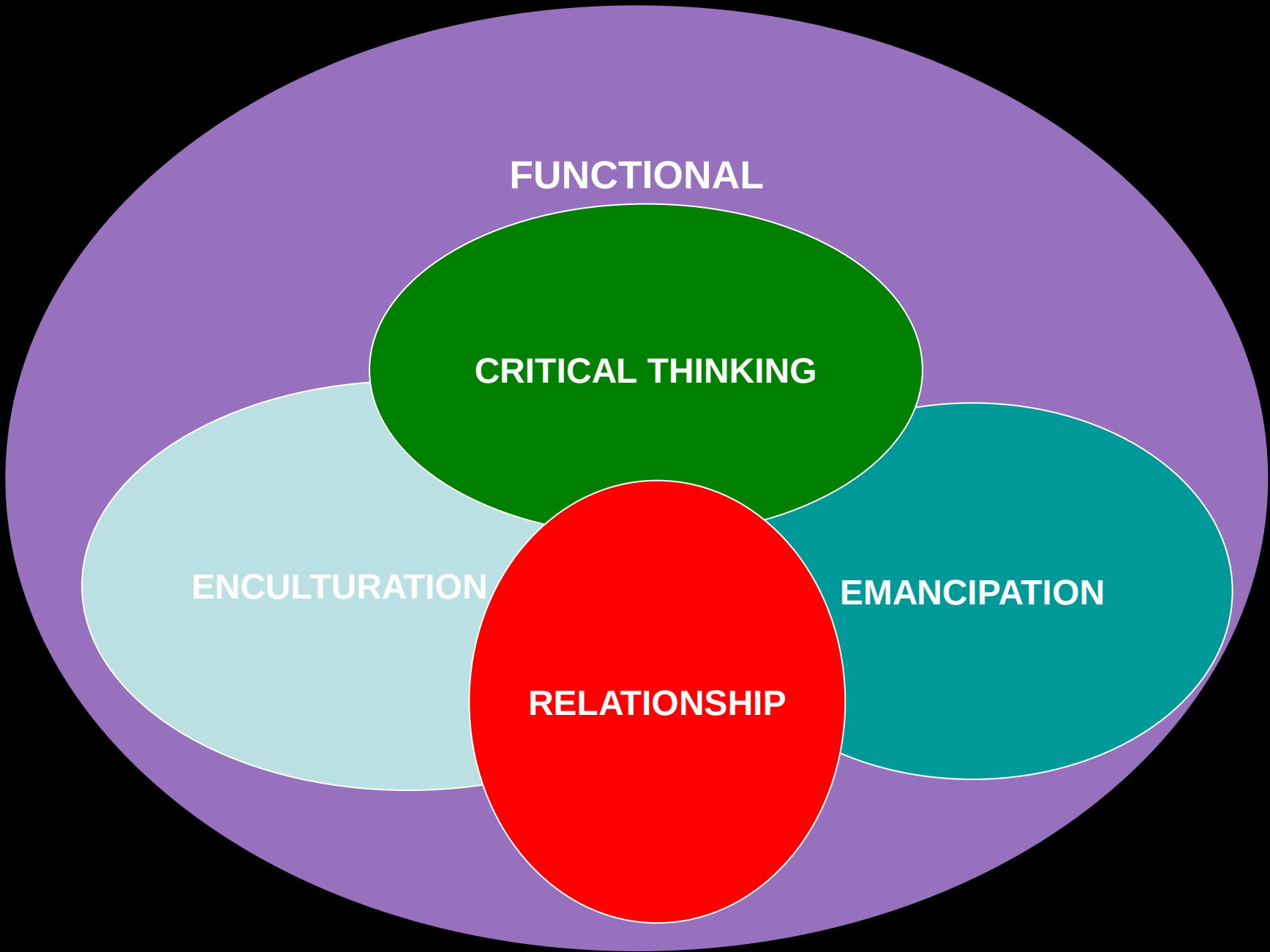
- Understanding context is vital for identifying the most useful development activities: strategic plans for PGRs, expertise available, previous experience etc
- Supervisors' approach to supervising research has a profound influence on how they will supervise
- Shared experience, there are often no right or wrong answers, but there are a range of approaches from which we can choose.
- Discussion, and using the Surrey and Harvard research results will help to create that range of approaches.
- Approach to supervision can be linked to core beliefs about what research is and to experience of being supervised.
- Understanding a range of approaches is important, but deal with the functional elements first.
- Co-supervision can be helpful if the roles are clearly allocated

Good supervision is defined as: meeting institutional, disciplinary and student expectations.

Some suggestions for working towards acceptable standards of supervision

A. Monitoring within institutions
B. Strategic Guidance
C. Developing Supervisors
D. Tactical suggestions

These lists were created by participants at a UKCGE conference at Reading University in December 2008 and is intended as a stimulus for discussion, not a prescription.


FUNCTIONAL
CRITICAL THINKING
ENCULTURATION
EMANCIPATION
RELATIONSHIP

References and further reading

Barnett R (1997) *Higher Education: A Critical Business*. Buckingham. SHRE/OU

Barnett, R. (2009). Knowing and becoming in the higher education curriculum Studies in Higher Education Vol 34 No 4 429-440

Brew A (2001) Conceptions of Research: a phenomenographic study. Studies in Higher Education. Taylor and Francis Oct 2001, 26 (3), 271-285,

Cryer P (2006) 3rd Ed The Research Student's Guide to Success Maidenhead. McGraw Hill

Delamont S, Atkinson P & Parry O (2000) *The Doctoral Experience. Success and Failure in Graduate School.* London. Falmer Press

Deuchar, Ross(2008) 'Facilitator, director or critical friend?: contradiction & congruence in doctoral supervision styles',Teaching in Higher Education,13:4,489 — 500

Donald, J. G. (2002) *Learning to Think* San Francisco, Jossey Bass.

Eley A, Jennings R (2005) Effective *Postgraduate Supervision.* Maidenhead. OU Press McGraw-Hill Education

Ives, G. and Rowley, G. (2005) "Supervisor Selection or Allocation and Continuity of Supervision: Ph.D. Students' Progress and Outcomes", *Studies in Higher Education*, vol. 30, no. 5, 535-555

Jenkins A, Healey M and Zetter R. (2007) Linking teaching and research in disciplines and departments. York. Higher Education Academy.

Lave & Wenger E (1991*) Situated Learning: legitimate peripheral participation* (Cambridge, Cambridge University Press.

Lee, A (2009) Some Implications of European Initiatives for Doctoral Supervision. The Bologna Handbook. http://epubs.surrey.ac.uk/info_sci/13

Lee, A (2009) Teaching Masters programmes and Doctoral supervision: at the boundary of research and teaching. Conference proceedings for Scholarship of Teaching and Learning Conference. London 2008

Lee, A (2009) The postdoctoral researcher – aiming high. An initial survey of the literature. Commissioned review for Vitae UK (CRAC) Lee, A (2008) How are doctoral students supervised? Concepts of research supervision. *Studies in Higher Education* 33(4)

Lee, A (2008) How are doctoral students supervised? Concepts of research supervision. Studies in Higher Education 33 (4) pp267-281 http://epubs.surrey.ac.uk/info_sci/10

Lee, A (2008) Supervision Teams: making them work. London. SRHE

Leonard D (2001) *A Woman's Guide to Doctoral Studies*. Buckingham. OU Press

Pearson M and Brew A (2002) *Research Training and Supervision Development*. Studies in Higher Education Vol 27 No 2 2002

Pearson M and Kayrooz C. (2004*) Enabling Critical Reflection on Research Supervisory Practice.* Int. Journal for Academic Development 9(1) pp 99-116 Routledge

Taylor S and Beasley N (2005) *A handbook for Doctoral Supervisors*. Abingdon. Routledge

Vardy, P. and Grosch, P. (2008) *The Puzzle of Ethics* London, Fount.

Wisker G (2005) *The Good Supervisor*. Basingstoke. Macmillan

Some further information

Useful web sites include:

Quality Assurance Agency web site and code of good practice at: **www.qaa.ac.uk**

UK Vitae web site and handbook ‘Supervising a doctorate’ at **www.vitae.ac.uk**