enjoying and getting research degrees reliably
Drive

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Friday, 8 May 2009
personal opinions
Four points of view

1. You
2. International research
3. Your department
4. Your supervisor
You
Vision

drive
not mediocrity
Reflection

1. What have you read?
2. What courses have you done?
3. What have you learnt about research as such?
4. What research skills are you learning?
Further reading

• Steven Covey, *Seven Habits of Highly Successful People*

• Gordon Rugg & Marian Petre, *The Unwritten Rules of PhD Research*

• Estelle Phillips & Derek Pugh, *How to Get a PhD* (4th ed)

• David Crystal, *Encyclopedia of English*

• Richard Feynman, *Cargo Cult Science*

• Richard Wiseman, *The Luck Factor*

• Carol Dweck, *Mindsets*

• Paul Cairns & Anna Cox, *Research Methods for Human-Computer Interaction* [or equivalent for your area]
Begin with the end in mind

• Thesis
• Viva
• Actual and recognised research skills
• Actual and recognised professional skills

If you don’t know where you are going you won’t know whether you are doing enough to get there
Calibration

not ignorance
work hard
What is enough thesis?

progress

sufficient

3 years

viva

time
750 things?
pages, references, code, stuff

• 1 year = 50 weeks
• 1 week = 5 days
• 1 PhD = $\frac{750}{750}$ advances per day
• Average one advance a day

• **If you work uniformly all the time**

• Some days **much** more
What is enough research?
If you under-perform just a bit

you won’t make it

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What is enough research?
• Exponential growth is good

• You only have to improve by “1%” a day to succeed

• But “0.1%” per day fails

• Can you tell the difference?
Calibrate *yourself*

• What is good enough? (compare with others)

• Are you getting better? (compare with yourself)

• Are you working hard enough?

• **Get better almost every day**
Biggest mistakes?

no calibration
delayed write up
no fun
What is enough thesis?

progress

sufficient

3 years

viva

time
2.

International research
What is a research degree?

• You know the papers, books…

• You are a proactive member of the research community

• You know the international people…

• You know where they are

• You’ve met or corresponded with some of them
Masters versus PhD

- MRes you know 10 top papers
- You know of 5 top researchers
- PhD you know 100 papers, 20 PhDs
- You’ve met 10 top researchers
- You’ve worked with some
3. Your department
Excellent PhD department

• Transparent budget for researcher development
• Regular department-researcher activities
• Regular lunchtime peer activities…
• Regular training activities
• Continual formative feedback
• Representation in research decision-making
• Encourages and responds to complaints
• Encourages supervisor development
• Empowerment
• Single point of call
• and it’s visible
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- and it’s visible
Weak PhD department

• None of those
• Encourages teaching (i.e., helps supervisors’ research)
• Procedures not resources
• Performance/progression not development
• No disagreement
• Isolated visitors
4. Your supervisor
Psychology 101

• Individual differences
• Match personalities
• Change
• Manipulate Relate (not manipulate as in deceive)
A supervisor should...

- Help you do better than themselves
- Challenge you
- Inspire you — and inspire you about research in general
- Move you from dependence to leadership
- Move from supervision to collaboration & co-authoring
- Not get you to do their research
- Make you accountable for progress
- Train you to write & to read your writing
- Train you to defend your ideas
- Not do your work
Scary thought

What if [...] is not enough?
Hope
free thoughts
Don’t worry over here

Circle of influence

Circle of concern
Don’t waste your time
doing things that don’t help make progress
Get better

stretch yourself
Fixed mindset

Growth mindset

Leads to a desire to look smart and therefore a tendency to...

Leads to a desire to learn and therefore a tendency to...
finally...

• Learning *but not too much*

• Cargo cult science

• Scientific luck

• Know your heros

• Get out & about — plan your visits now

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Your thoughts?
Your actions?