
Finding funding for your research and carrying it out

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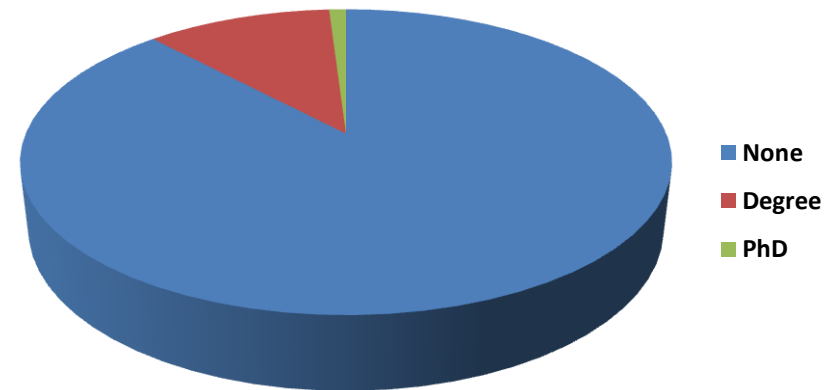
Presentation Overview

1. Background
2. Motivation for research
3. Finding funding for your research
4. Carrying out your research
5. Summary



Background

- Very few people in population hold first degree or higher
- Only a tiny minority hold a PhD
- It is an intensive programme
- Duration – usually 3 yrs or over
- Chances of a first job higher
- No initial income advantage over first degree
- Long term prospects very high



Qualification and population



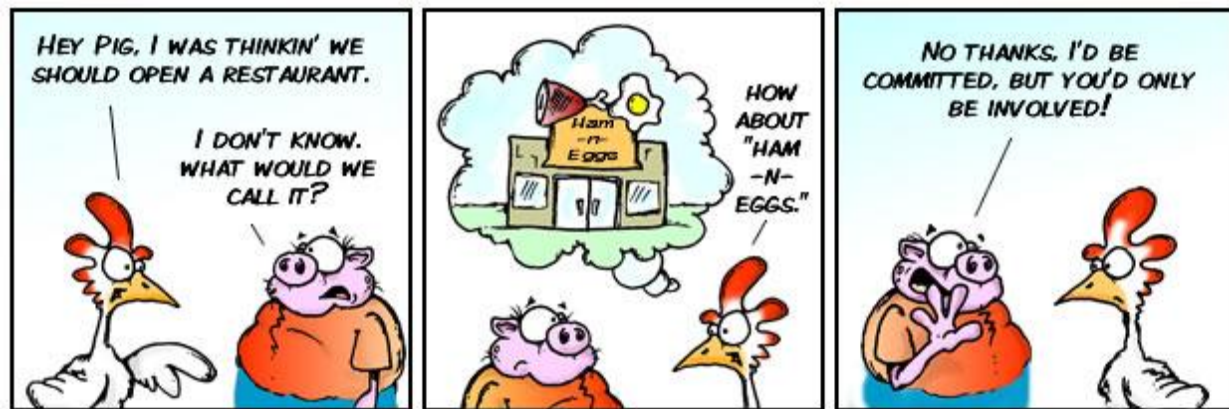
Check your motivation

- Establish your motivation
- You may simply be interested in the qualification
- You may be interested in research for its own sake
- Motivation could be to get into academics later on
- You could be interested in working in R&D in a big company or research laboratory
- You may be embarking on this because there is no job yet



How committed are you to doing research?

- Your commitment will determine how long you look for funding
- Will determine how well or properly you look for funding
- In the making of eggs the chicken is involved but in the making of ham the pig is committed



By Clark & Vizdos

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<http://www.implementingscrum.com/2006/09/11/the-classic-story-of-the-pig-and-chicken/>



Some funding sources

- Most UK Universities currently fund studentships based on Research Assessment Exercise allocation
- Project studentship based UK Research Councils' funding
 - BBSRC - Biotechnology and Biological Sciences Research Council
 - EPSRC - Engineering and Physical Sciences research Council
 - SSRC - Social Science Research Council
- ORSAS - Overseas Research Students Awards Scheme
- Commonwealth Scholarship Commission (from Nigeria)
- PTDF - Petroleum Technology Development Foundation Scholarships (from Nigeria)



Applying for funding

- Most of UK funded studentships can be found at:
<http://www.jobs.ac.uk>
<http://www.jobs.ac.uk/jobs/phd-studentship>
- In most cases you respond by simply sending a letter of application + CV
- Try and emphasise your strength in relation to the project and indicate your previous relevant work if possible
- Application letter should show excellent motivation and CV should include any awards or prizes you might have won
- Need to be flexible to work on subject or projects proposed by funder
- Don't give up, try and try again



How do you show motivation in your letter of application?

- Indicate your sustained ambition, desire or interest to do a PhD
- Indicate your interest in the subject, its significance and its application
- Indicate what you intend to do with the degree afterwards
- Express your interest in the Research Group or the Professor's work
- You may refer to some of the work done in the research group that you have search out or seen



Should you send a research proposal?

- Could send a research proposal if you feel knowledgeable
- It is another way of demonstrating motivation
- What should be in the proposal?
 - Describe the problem or challenge
 - Who else has attempted solving the problem, and what did they do?
 - What you are going to do in your research ?
 - How you are going to do the research?
 - Why will the research be important to the academic community?



Getting ready for interview!

- Try to learn about the area as much as possible
- Learn about the Groups work
- Arrive promptly
- There is no need to be anxious, this counts against
- Good to be confident but not arrogant
- Never good to bluff although can say what you think
- May ask questions to clarify any doubts you may have; but not too many



Examples of people I know

- MO – DPhil Oxford
- GK – DPhil Oxford
- TO – current DPhil student
- AO – PhD Imperial College
- Self



Carrying out your research

How do you begin?

- Find out as much as possible what your supervisor wants you to do
- Read around the subject as much as possible
- Try and learn about your environment, IT, resources, laboratories, etc
- Attend seminars in your group if there are some
- Try to see thesis completed by previous students if possible



What should you be aiming at?

- Aim high, attempt to achieve something useful
- Aim to finish your PhD as early as possible
- Aim to publish at least a journal paper by the time you are ending your second year
- Aim to give a conference presentation from your second year onwards

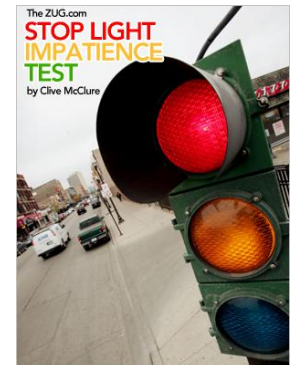
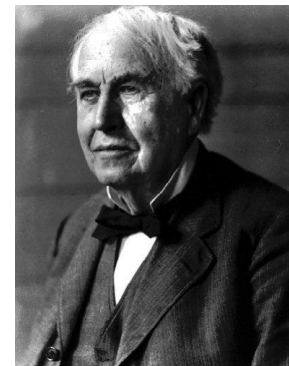


Helpful attitudes during your research

- Focus is very important
- Imagination
- Reasoning, logic and writing required to solve problems

“There is no expedient to which a man will not resort to avoid the real labour of thinking”

- Be conscientious
- Be positive and patient
- Try different ways to solve a problem



Helpful attitudes during your research (contd)

- Be ready to receive critiques, some may be very harsh
- Some of your effort may appear wasted, this happens to everybody; try another approach. The breakthroughs you get eventually more than compensate
- Be ready for your emotions to be cycled between false hopes and outstanding achievements



Getting help for your research

- Ask questions
- Read other peoples works
- Join internet groups in your subject area
- Contact other laboratories or groups
- Meet your supervisor regularly to discuss your ideas
- Give seminar talks in your group where you will get feedback



Time management

- Invest time, a lot of it but stay healthy!
- Know your productive times and use well
- Discipline is delayed gratification
- Set priorities for your life generally

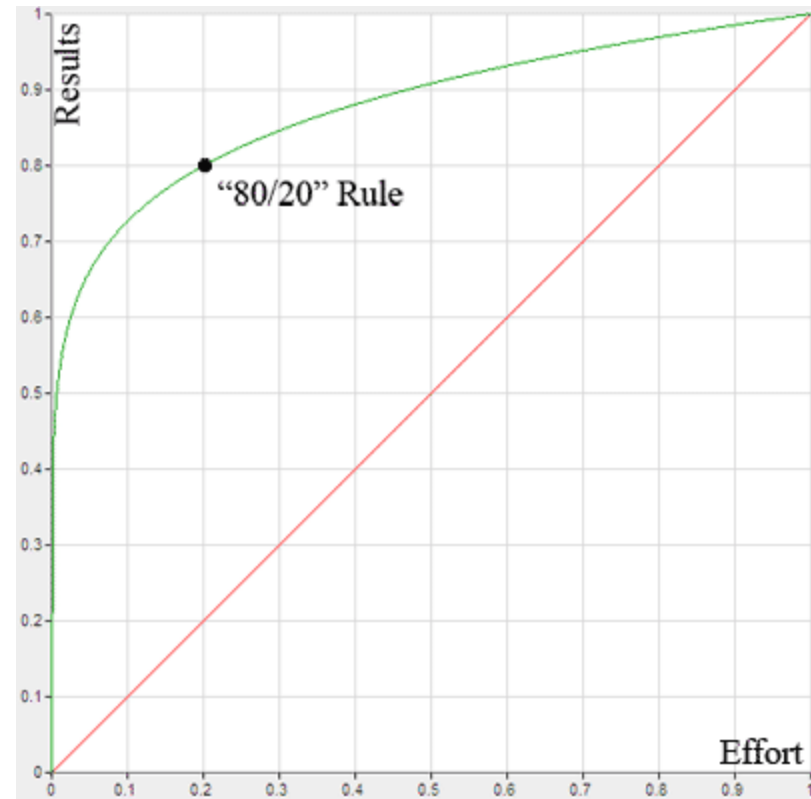
PRIORITY TABLE

		IMPORTANCE	
		Low	High
URGENCY	Low	Don't do	Do it later
	High	Someone else to do	Do it now

Don't get too excited with early wins – remember Pareto rule

PARETO 80/20 RULE

- Generally suggests that 20% of initial effort generates 80% of required result and 80% of effort is required to generate the last 20% of results required
- Effectively, recognise that output is hardly linear with effort
- Apply this in different contexts of life



<http://betterexplained.com/articles/understanding-the-pareto-principle-the-8020-rule/>

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Summary

- Highlighted significance of research degree
- Highlighted funding sources helpful for supporting your PhD research
- Discussed how you might better position yourself to get funding
- Highlighted how you could begin your research, aims you could have and attitudes that could be helpful
- Briefly highlighted time management and setting priorities
- Lastly talked about relationship between your effort over time with the achievement of your goal to complete a PhD



Formula Student Project



First hybrid car at FS Competition in Silverstone UK - May 2007