DClinSci Year 3, 4 & 5

Aims:

to get to a successful Professional Doctorate!

Focus:

How to help the trainees with their research projects

Shazia Dar

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Claire Moss

Jenny Cockitt

Thanks to:

Karen Kirkby

Julia Handley

Anne White

Rebecca Dearman

Kai Uus

Garry McDowell

Life Sciences (extended pathway)

	Semester 1	**Semester 2**

Year 1

A1
Semester: 1
30 credits

Section B: Specialist Scientific Clinical Programme—FRCPath Part 1
(75 credits)

Year 2

Section B: Specialist Scientific Clinical Programme—FRCPath Part 1
(75 credits)

A2
Semester: 2
20 credits

Submit Research Project Form

Year 3

C-Research Project

Year 3 workshop – September
- How to give a lay talk
- Lit review vs systematic review

A3
Semester: 1
30 credits

Submit Literature Review

A4
Semester: 2
20 credits

Give Lay Talk

Year 4

C – Research Project

Year 4 workshop - January
- How to write a thesis
- How to write a paper
- How to give a professional talk

A5
Semester: 2
20 credits

Year 5

C – Research Project

Submit Thesis

Viva voce examination

Detailed Timeline for DClinSci

30th September 2018	research proforma submission appointment of academic supervisors
30th November 2018	Royal College of Pathology approval
31st December 2018	Planning/expectation meeting optional draft 1500 words for feedback
31st March 2019	Literature review submission
30th April 2019	Progress meeting (1)
May 2019	Lay presentation
31st January 2020	Progress meeting (2)
30th June 2020	Progress meeting (3)
31st January 2021	Thesis planning meeting
September 2021	End date (submission and viva)

Detailed Timeline for C1 project

30th September 2018   C1 title submission
appointment of academic supervisors

30th October 2018   Planning meeting

30th November 2018   Innovation proforma (300 words)

31st December 2018   Optional formative 1500 words

31st january 2019   Progress meeting

28th February 2019   Literature review/business case submission

30th April 2019   Feedback from supervisors on written component

May 2019   Lay presentation

Research proforma

Proforma

Aims of research

Principal research questions

Proposed methods

Potential impact of research

Summary of patient and public involvement

     500 words

Other considerations

Ethical approval required?

Animal work involved?

Funding? (grant applications?)

Intellectual property (Expectations document: part of UoM's

                        agreement with commissioners)

Progression

███████████████

A student's progression displays all the milestones, researcher development and any taught units for which the student is registered and the completion status of the student for each activity. The unit code links to a profile of the activity and, where the viewer has permission, it may be possible to access the content of forms associated with the activity.

An Additional Meeting Form is available to record the outcome of any meetings between a student and a member of their supervisory team other than those prescribed on the student's progression record.

| Unit Code	Title	Deadline	Status	
FBMHM1200	C1 Planning Meeting	01/02/2017	Completed 10/2/2017	Edit
	C1 Planning Meeting	01/02/2017	Completed 10/2/2017	Edit
FBMHM1400	Submission and Approval of C2 Proforma	01/02/2017	Completed 17/2/2017	Edit
	Submission and Approval of C2 Proforma	01/02/2017	Completed 15/2/2017	Edit
FBMHM1304	Optional Formative Written Submission and Feedback	15/03/2017	Completed 13/3/2017	Edit
	Optional Formative Written Submission and Feedback	15/03/2017	Completed 13/3/2017	Edit
FBMHM2030	Progress Meeting 1 - PT	01/04/2017	Completed 5/5/2017	Edit
	Progress Meeting 1 - PT (FBMH)	01/04/2017	Completed 5/5/2017	Edit
FBMHM1301	C1 - Submission of Written Component (Literature Review and Innovation Project)	30/06/2017	Completed 30/6/2017	Edit
	C1 - Submission of Written Component (Literature Review and Innovation Project)	30/06/2017	Completed 30/6/2017	Edit
FBMHM1302	C1 - Feedback on Written Component	31/07/2017	Completed 31/7/2017	Edit
	C1 - Feedback on Written Component	31/07/2017	Completed 31/7/2017	Edit
FBMHM1303	Confirmation of Progression to C2	30/09/2017	Completed 5/10/2017	Edit
	Confirmation of Progression to C2	30/09/2017	Completed 5/10/2017	Edit
UVEXM0001	Expectations 1	01/10/2017		Edit
	Expectations 1	01/10/2017	Submitted 14/12/2017 Authorised 1 of 2	
FBMHM1305	C2 Research Planning Meeting	31/10/2017	Completed 6/2/2018	Edit
	C2 Research Planning Meeting	31/10/2017	Completed 6/2/2018	Edit
UVEXM0002	Expectations 2	30/11/2017		Edit
	Expectations 2	30/11/2017	Submitted 14/12/2017 Authorised 1 of 2	
FBMHM1030	Literature Report Submission	14/02/2018	Completed 1/3/2018	Edit
	Literature Report Submission - Electronic Submission and Confirmation of Receipt by Supervisor FBMH	14/02/2018	Completed 1/3/2018	Edit
FBMHM1040	Literature Report Meeting	28/02/2018		Edit
	Literature Report (FBMH)	28/02/2018	Form available	Edit
FBMHM2050	Progress Meeting 2 - PT	30/06/2018		Edit
	Progress Meeting 2 - PT (FBMH)	30/06/2018	Form available	Edit
FBMHM4900	Thesis Planning Meeting	31/12/2018		Edit
	Thesis Planning Meeting (FBMH)	31/12/2018	Form available	Edit

Comfort zone

Easy, stress free, "doing ok", no dramas, happy, content

Stretch zone

Pushing performance, high effort, improving, excitement, adrenaline, growth

Panic zone

Anxiety, worry, bad decisions, irritable, concern, poor performance
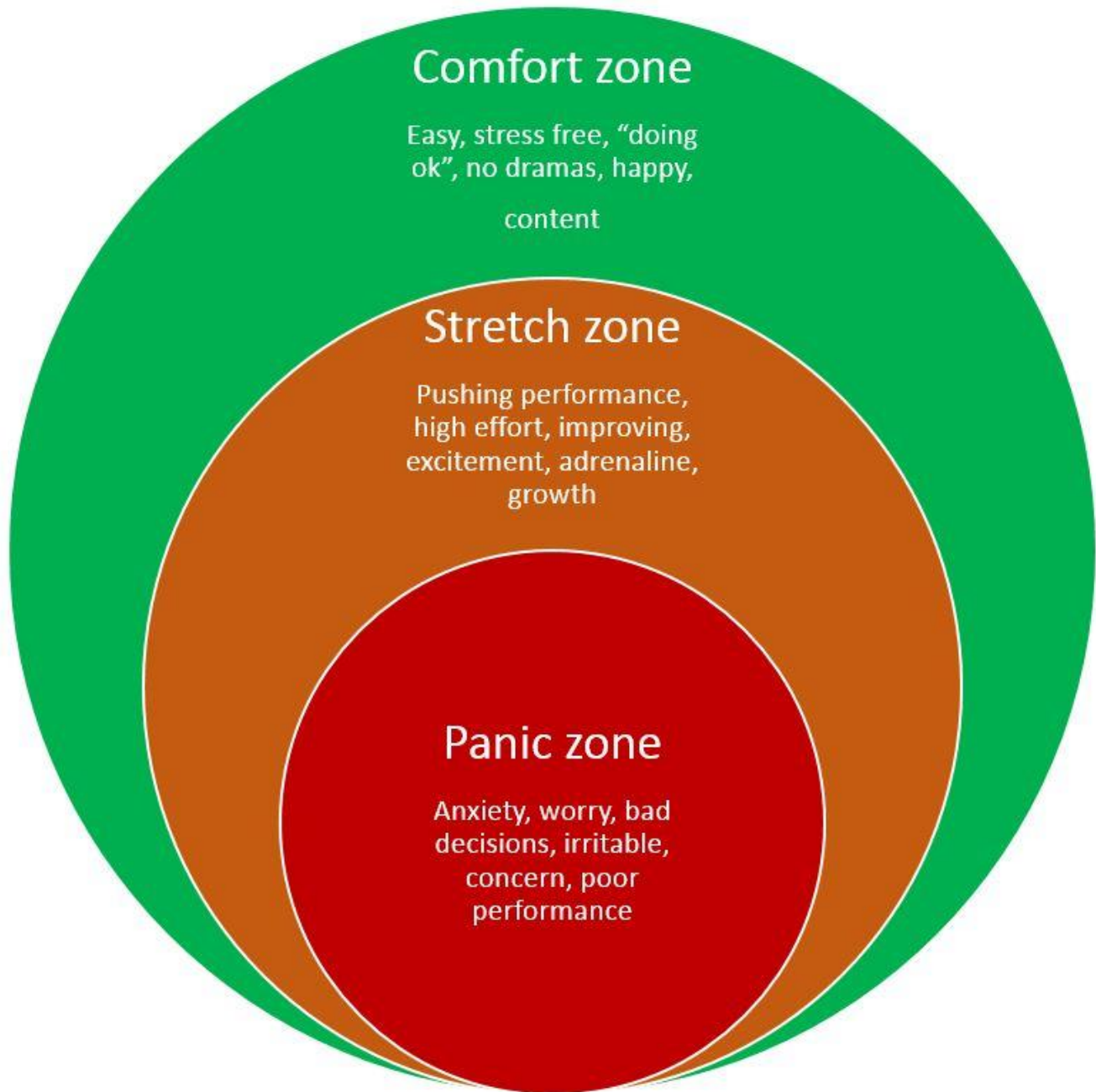
What is a Professional Doctorate?

A Research Degree: meeting Quality Assurance Agency (QAA) *Level 8* criteria
and FQ-EHEA for Doctoral Degrees

It requires:

- Creation and interpretation of new knowledge,
  - through original research or other advanced scholarship,
  - of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication.

- A systematic acquisition and understanding of a substantial body of knowledge
  - at the forefront of an academic discipline
  - or at forefront of area of professional practice

- A detailed understanding of applicable techniques
  - for research
  - and advanced academic enquiry
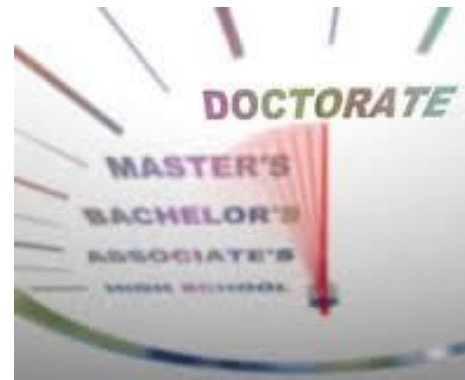
How does a Professional Doctorate differ from other research degrees?

1. Inclusion of structured elements

    emphasis on candidate acquiring skills relevant to professional practice,
    in addition to producing original research

2. Allows individuals to situate professional knowledge developed over time in a theoretical academic framework

3. The Research project is relevant to and embedded within candidate's profession

4. Professional Doctorates aim to
    develop an individual's professional practice
    support them in producing a contribution to (professional) knowledge

THE **DIFFERENCE**
BETWEEN A PHD
& PROFESSIONAL
DOCTORATE

How do the roles of the two supervisors compare?

Workplace Supervisor	Academic Supervisor
• Detailed knowledge of the project background	• Understands the academic process for Doctoral degrees
• Understanding of the constraints on the student	• Has experience of supervising PhDs/MDs
• Usually close by to give day–to-day advice	• Understands the constraints
	• Can find the University person to provide guidelines for the degree

How do the supervisors interact?

- Usually by skype or teleconference.

- One face-to face meeting each year is important/preferable

- Who sets the dates for meeting?

- What happens if project not going well-who identifies this? Who do the supervisors get help from?

- Academic supervisor should take lead on reading drafts of thesis.

How to do project management- at a distance/in a team?
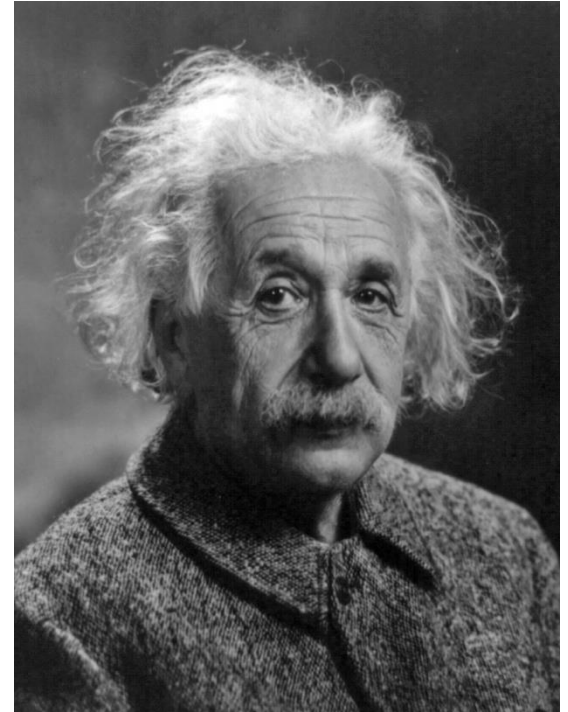

Opportunity for greater success

BUT

Greater risk of things going wrong!!!

What is an acceptable Research Project?

If we knew what it was
we were doing,

it wouldn't be called 'research,'
would it?

Triangle of Constraints
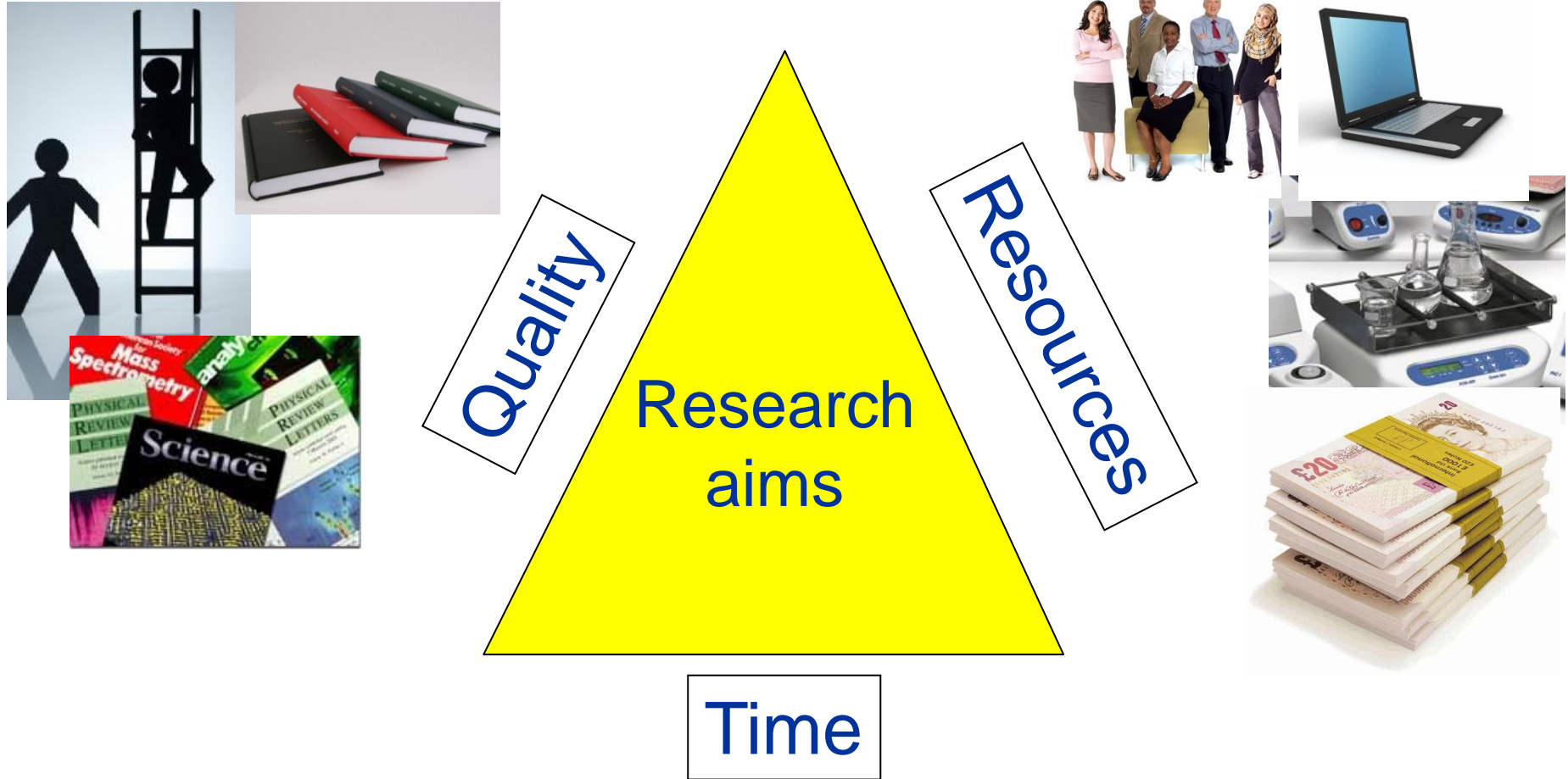
Beware scope creep

- **<u>Most</u>** common reason for projects delivering late/over budget

If you need to change the scope, ensure that:

- Changes are beneficial to the project

- Everybody is aware of the impact on the schedule and outcomes of the project

Additional ideas!!!

Original plan
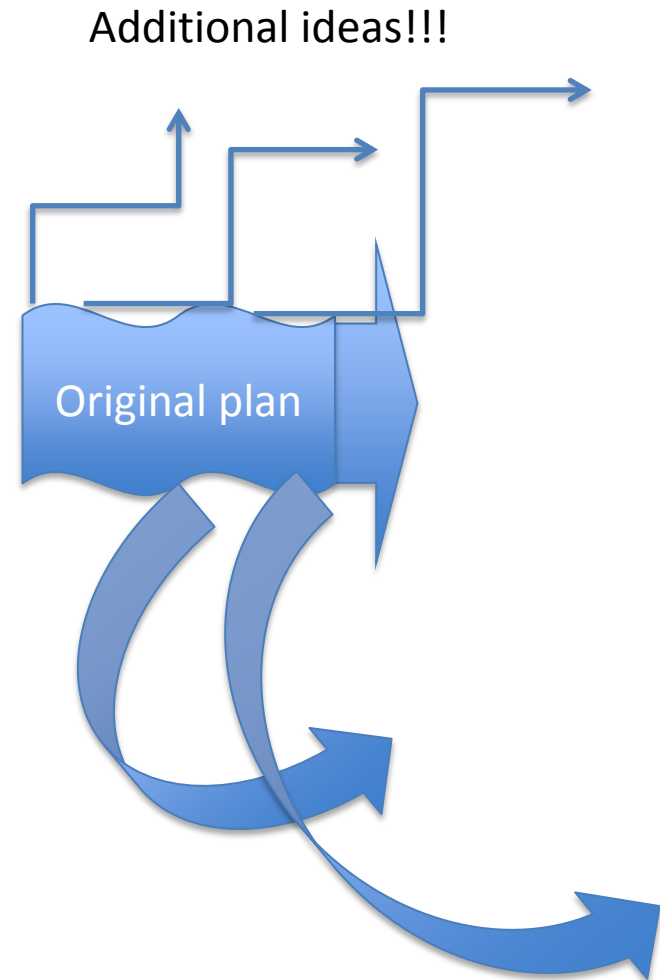
Engage all stakeholders in the research

Who will be affected?
Needed for support?
Interested in the outcomes?

Faculty/
University

Trust

Commissioners

Line manager

Project Team

Collaborators
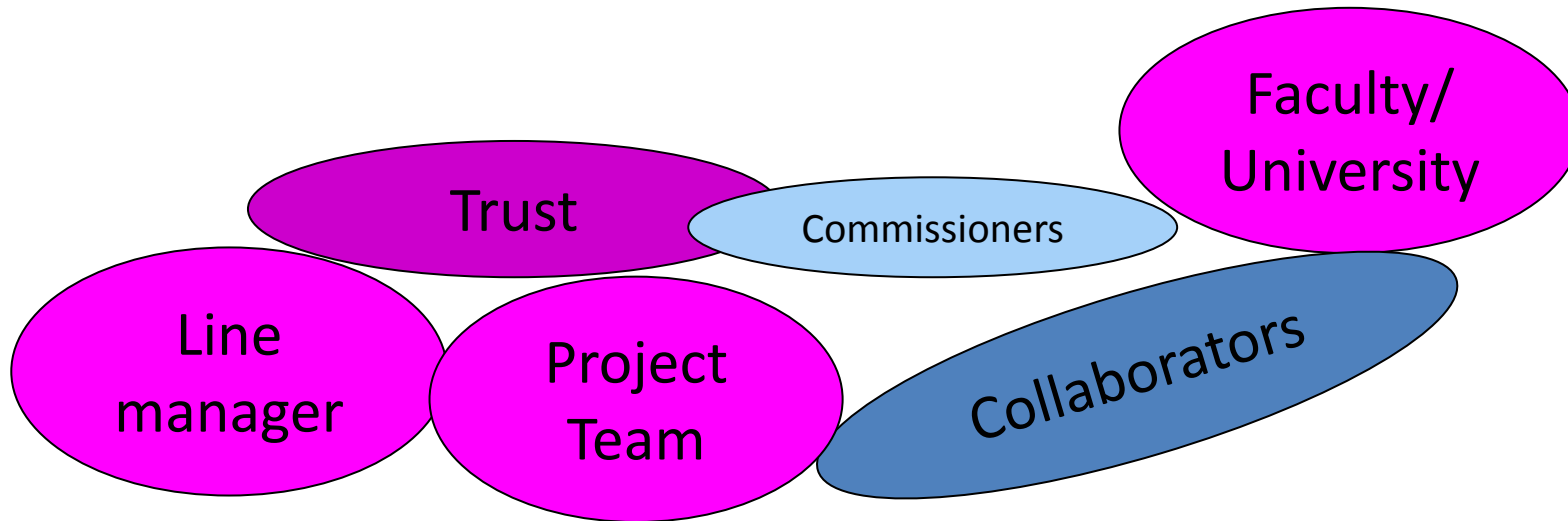
How do you manage the stakeholders expectations?
Think about reporting and communication - help each to appreciate the value of the project throughout

What do you need to know about the roles of all those involved?

- What resources does each bring to the project?

- What do they expect in return?

- How much responsibility does each supervisor have?

- What's their level of interest?

- How are you going to engage with the other supervisor?

- Do you need to manage them?

- Are there potential conflicts between a supervisor and student?

- Are other collaborators involved and have you been involved in establishing guidelines with them eg author on a paper?

Doctoral Standard Research

Original contribution to knowledge:

- Doctoral degrees are awarded to students who have demonstrated:
  - the creation and interpretation of new knowledge, through original research or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication

  - a systematic acquisition and understanding of a substantial body of knowledge that is at the forefront of an academic discipline or area of professional practice

  - the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and to adjust the project design in the light of unforeseen problems

  - a detailed understanding of applicable techniques for research and advanced academic enquiry.

For a professional doctorate
  - The research may be embedded in professional practice, driven by a problem identified from a 'real world' context, making a creative and critical intervention in that context, and leading to a practical outcome as well as a theoretically informed written thesis.

- ## It is not just optimising an assay/technique
  - ### although this can be part of the research if it includes
    - evaluation of patients or samples
    - and extensive analysis to show improvement

Drill Down

Are the tasks do-able? How do you question their validity?
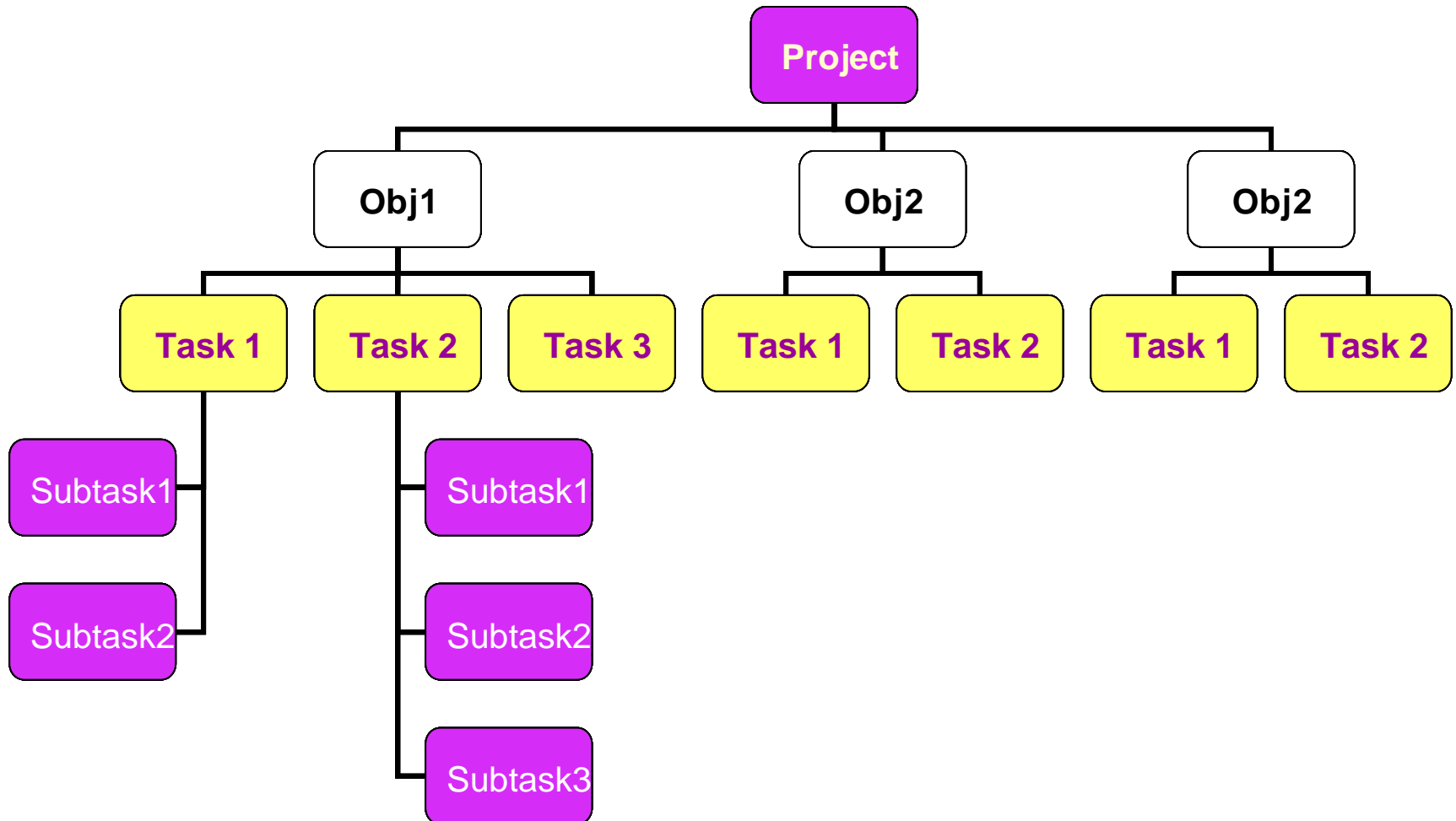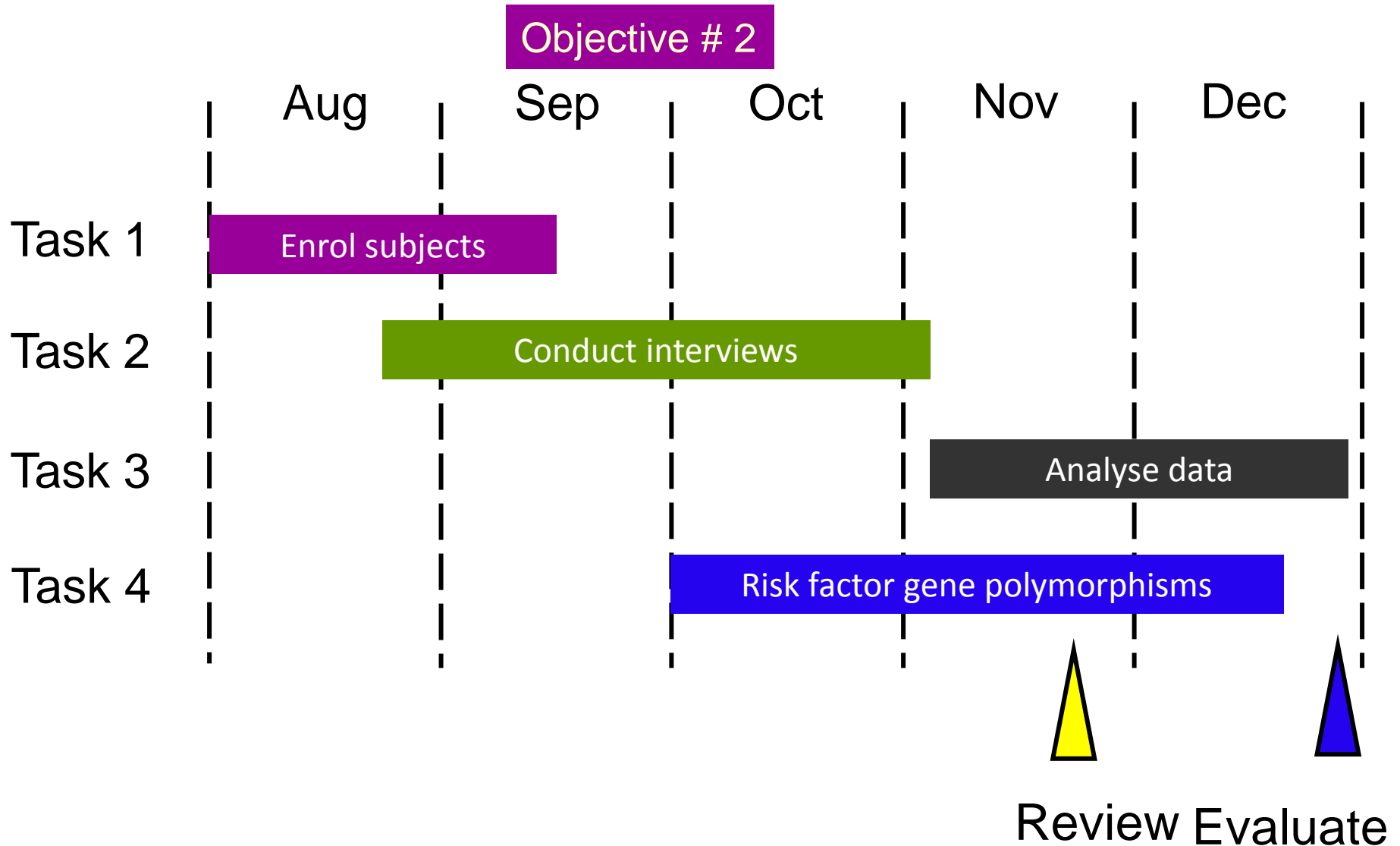
The reality of research

- Things go wrong!

- The direction of the research may change based on the results

- New data emerges from the research field

The project plan must anticipate all of this and more...

If the student is struggling to develop a plan *or behind schedule?*

This can suggest:

- project objectives are unclear
- They are unconvinced about the project
- The project is too large
- Unsure of responsibilities
- Need additional support or experience

- *Respond to delays early*
- *Consider implications if you adapt the plan*
- *Can you increase resources and/or engage others*

How will you monitor progress?

- Workplace supervisor:
  - Decide on an appropriate communication/monitoring system (type and frequency)
    - steering group meetings
    - regular project team meetings
    - weekly/monthly updates (paper or email)

- Academic Supervisor
  - Take responsibility for deadlines on University system
  - Adapt planning timelines from PhD and fix meetings

- Constant communication and transparency- particularly when things go wrong

What to do if you need advice?

- Academic supervisor
  - Contact administrators re guidelines
  - Liaise with Programme Directors about project content
  - Contact MAHSE about deferrals

- Workplace supervisor
  - liaise with line manager about time constraints
  - Contact NSHCS on HSST
  - Get advice on funding from the Commissioners

The Examination Process

- Discuss when thesis should be submitted now
- Determine the appropriate format now and perhaps modify with time
- Nine months to go-suggest external examiner by discussing at a supervisory meeting
- What is your role in reading the thesis?
- How do you set guidelines for giving feedback?
- Ensure care is taken to meet the University submission requirements
- Give advice on the examination process at viva
- Celebrate!!!!!

Overview

- Two formats
  - Journal
  - Traditional
- Suggested word count 20-40k words
- Presentation should follow the policy of the registering institution
  - UoM
    http://documents.manchester.ac.uk/display.aspx?DocID=7420

Overarching Thesis Structure

Journal Format	Traditional Format
Abstract	Abstract
Systematic Review / Literature Review	Introduction / Literature Review
Empirical Paper(s)	Methodology (where appropriate)
Critical Appraisal Paper	Results Chapter(s)
References	Discussion and Conclusion
Appendices	References
	Appendices

The Examination Process

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Submission and Binding?

- Guidelines are on MAHSE website

    - University of Manchester

What skills will the student gain?

Domain D

Engagement, influence and impact
The knowledge and skills to work with others and ensure the wider impact of research

- Working with others (D1)
- Communication and dissemination (D2)
- Engagement and impact (D3)

Collegiality
Team working
People management
Supervision
Mentoring
Influence and leadership
Collaboration
Equality and diversity

Communication methods
Communication media
Publication

Teaching
Public engagement
Enterprise
Policy
Society and culture
Global citizenship

Domain A

Knowledge and intellectual abilities
The knowledge, intellectual abilities and techniques to do research

- Knowledge base (A1)
- Cognitive abilities (A2)
- Creativity (A3)

Subject knowledge
Research methods: theoretical knowledge
Research methods: practical application
Information seeking
Information literacy and management
Languages
Academic literacy and numeracy

Analysing
Synthesising
Critical thinking
Evaluating
Problem solving

Inquiring mind
Intellectual insight
Innovation
Argument construction
Intellectual risk

Domain C

Research governance and organisation
The knowledge of the standards, requirements and professionalism to do research

- Professional conduct (C1)
- Research management (C2)
- Finance, funding and resources (C3)

Health and safety
Ethics, principles and sustainability
Legal requirements
IPR and copyright
Respect and confidentiality
Attribution and co-authorship
Appropriate practice

Research strategy
Project planning and delivery
Risk management

Income and funding generation
Financial management
Infrastructure and resources

Domain B

Personal effectiveness
The personal qualities and approach to be an effective researcher

- Personal qualities (B1)
- Self-management (B2)
- Professional and career development (B3)

Enthusiasm
Perseverance
Integrity
Self-confidence
Self-reflection
Responsibility

Preparation and prioritisation
Commitment to research
Time management
Responsiveness to change
Work-life balance

Career management
Continuing professional development
Responsiveness to opportunities
Networking
Reputation and esteem

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www.vitae.ac.uk/rdf

Journal Format

- The aim of journal format is to break the thesis into more manageable, 'bite-sized' chunks
- The advantage of this format is that it gives you the experience of writing in journal paper format.
- Comprises chapters that have been written in the form of journal papers – targeted to a relevant journal in the field.
- Format, presentation and word count will follow the guidelines of the target journal
- These may be papers that have been submitted to a journal, already accepted and published or chapters that are written as journal papers but are not yet submitted or ever intended to be submitted.

Systematic Review

- Default format for the Literature Review –closely linked to the main research project
- This may not suit all projects and an alternative approach should be discussed with the supervisory team
- The level of systematic review should also be agreed
- Presentation:
    - Follow the format and guidelines for the target journal
    - If no word count given the review should be a maximum of 8,000 words *(excluding references and tables)*

Empirical Results Paper

- **<u>Introduction:</u>** Present the background and argument for your review or study. Be explicit about aims, research question and/or hypotheses. *Do not copy and paste from your literature review to your empirical study*.

- **<u>Method:</u>** Include type of review/design, inclusion/exclusion criteria for papers or participants, measures, procedures, quality appraisal or statistical analysis plan

- **<u>Results:</u>** Balance descriptive text and tabulated information with an analysis of data.

- **<u>Discussion:</u>** Present a summary, a discussion of your findings drawing on relevant literature, strengths and limitations of your review/study, clinical and/or theoretical implications, suggestions for future research, conclusions.

Empirical Results - *presentation*

- This paper(s) should also be prepared in accordance with the guidelines of a specific journal

- **Word count:** in line with the target journal (if none stated 8,000 maximum)

- **Co-authors:** The contribution of co-authors must be clearly acknowledged

- **Reference list:** Apply the target journal's referencing style consistently. Include DOI numbers. Use Endnote.

- **Figures and Tables**: For your DClinSci thesis place these in the main text for reading ease but if your manuscript is to be submitted to the journal they should be placed after the reference list.

- **Footnotes:** Can be used to refer the reader to additional discussion points in the *critical reflections paper*

Critical Appraisal Paper

- The focus of this section should be a consideration of how your present project fits in with contributes to theory and clinical practice in the particular field.

- If you have done a systematic review and study, the critical appraisal paper should put the current review and project in the wider context of research and clinical practice and link the review /project findings to relevant theoretical underpinnings.

- *It is not expected that this paper would be submitted to a journal*

What to include?

- Refer to and appraise the research process as a whole, making reference to what was not done and why it was not done, as well as to the work that was actually carried out.
- Strengths and weaknesses of the project (i.e. the work actually carried out rather than the methodology or line of enquiry as a whole)
- Advantages and disadvantages of the broad methodological approach used in the project and consideration of alternative methodologies that could have been utilised.
- Limitations of the line of enquiry as a whole
- Implications for theory and for clinical practice
- Suggestions for further research or implementation

Presentation

- **Word count** (no more than 6,000 words)
- **Duplication and length -** incorporation of publication-style sections in the thesis will invariably lead to some duplication (as each section will have self-contained components that overlap other sections) across the various sections of the thesis
- **References** ???