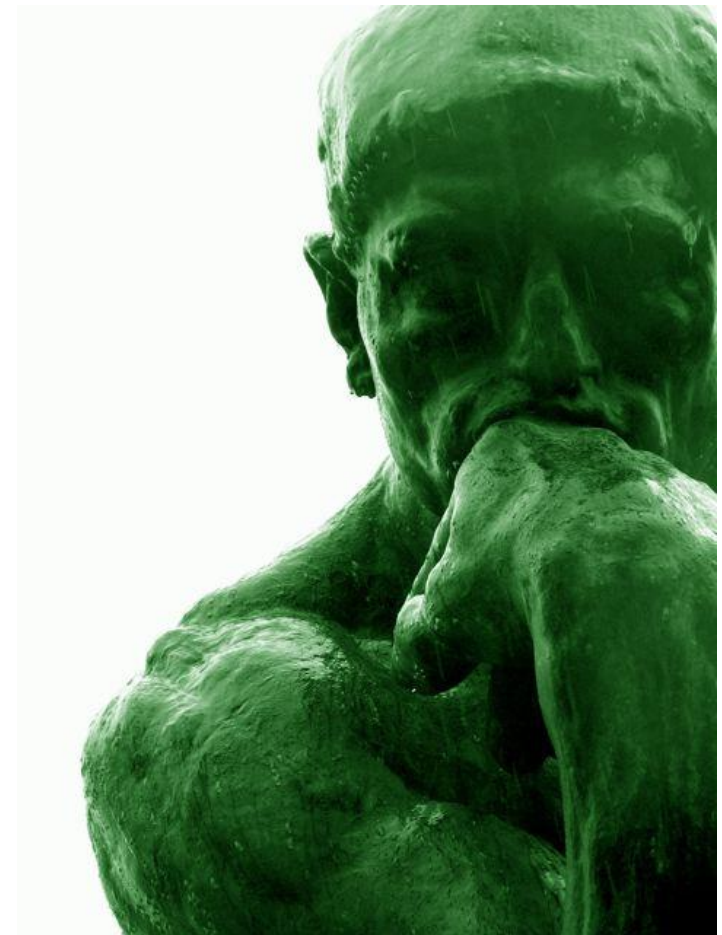


Developing generic skills for novice researchers using LNAs and PDPs

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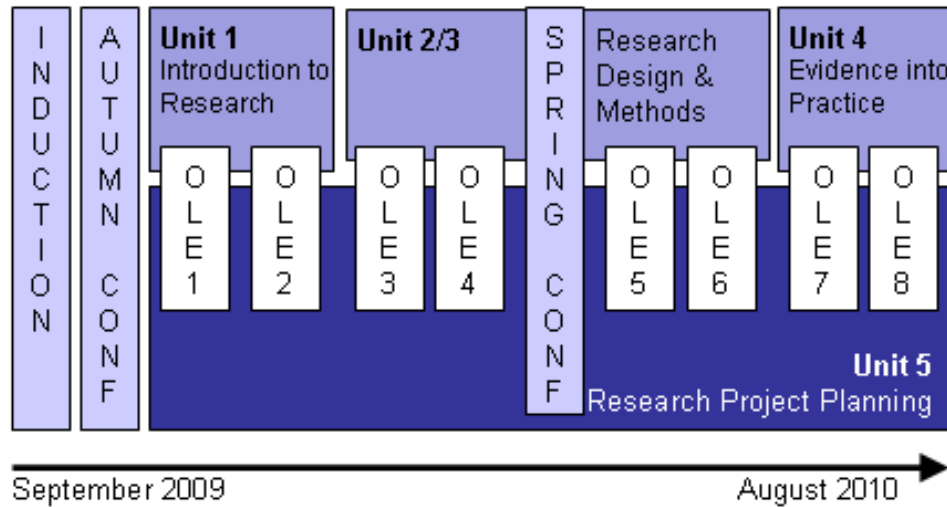
Overview



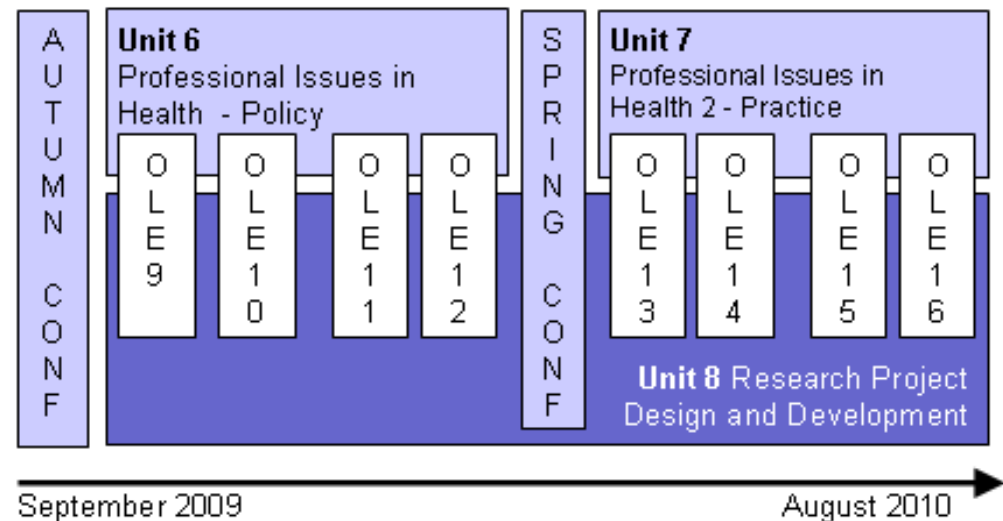
- Context
- Developing research skills
 - What are we all currently doing?
 - What skills need developing?
 - Why is personalised learning appropriate?
- An LNA/PDP approach
- What the learners said
- Next steps

Context

Professional Doctorate in Health - Phase 1



Professional Doctorate in Health - Phase 2



Programme Profile

- Started in 2005
- 5 cohorts on programme
- 60 students in total
- LNA/PDP process used in Phase 1 and 2 of programme
- Embedded and assessed in these phases
- Supported by Professional Development Advisers (PDAs)

Our Learners



- Health professional or related roles
 - Doctors, nurses, physios, managers, paramedics, podiatrists
- Mid career (A4C band 7+) (but some hobbyists)
- 28-60+
- Equally mixed gender
- National and international
- Very different research projects, research designs, practice contexts, theoretical traditions
- Studying alone in online distance learning environment
- Typically MSc qualified – but not a programme requirement
- Purposefully selected a professional doctorate over a PhD

Activity: Sharing experiences

- A show of hands around the room – indicate:
- What do you currently do to develop skills of your novice researchers?
 - Whole programme?
 - Compulsory/Optional?
 - Embedded in the programme of study?
 - Orientated to personal development?
 - Provided centrally or within department?

Activity: What skills?

- Whole group discussion:
 - Where did you start in determining what skills to include?
 - What skills are you developing?
 - Are you focusing on some areas more than others?
 - Are there particular skills areas which students are requesting support in?

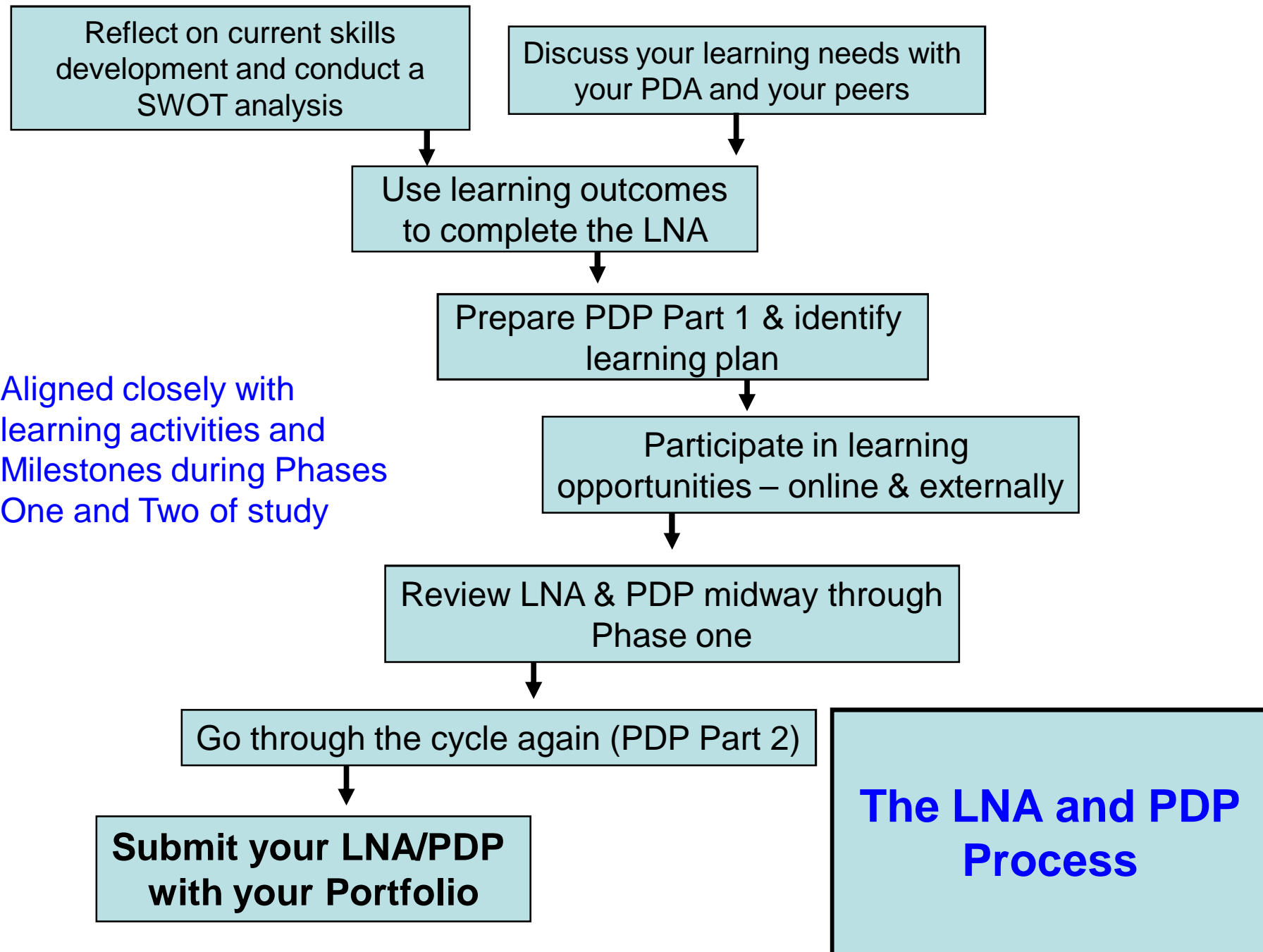
Our starting point

- ✓ (A) Research Skills and Techniques
- ✓ (B) Research Environment
- ✓ (C) Research Management
- ✓ (D) Personal Effectiveness
- ✓ (E) Communication Skills
- ✓ (F) Networking and Teamworking
- ✓ (G) Career Management

UK Research Councils' Joint Statement Training Requirements for Research Students

A personalised learning approach

- Theory
 - Based on Andragogy – Malcolm Knowles
 - Supports independent, individualised learning
 - Suitable for health professionals
 - Supports a reflective and developmental approach
 - Appropriate in situations of high variability
- Practice
 - Align Roberts' criteria to learning outcomes
 - Express as self diagnostic questions
 - Set out in easy to follow steps for 'scaffolding'



	Learning Outcome	<p>Review your learning needs in the light of the following checklist – Use the questions to determine how much experience and expertise you have (respond by answering the questions yes or no).</p> <p>If you identify a learning need which isn't covered by the questions below – make a note of this at the bottom of the form</p>	<p>For each learning outcome, indicate the level of your current knowledge and skills: <i>LOW: (little or no experience; most of my checklist answers indicate the need for further development)</i> <i>MODERATE: (some experience; about half of my checklist answers indicate the need for further development)</i> <i>HIGH: (significant experience; a small number of my answers indicate the need for further development)</i></p>	
5	<p>Demonstrate a range of skills of a competent researcher, including accessing and using evidence, reflecting on practice, designing and planning a research project, presenting ideas cogently and researching and practising in an ethical and legal manner</p> <p>The questions in this section are derived from the Joint Research Councils' Skills Training Requirements and are indicative only.</p> <p>Please also note that you only need to demonstrate your participation in up to 3 of these areas in Phase One. The rest may be addressed in Phases 2 and 3.</p>	<p>Research Skills and Techniques: Can you recognise and validate problems? Can you think critically and independently? Can you develop theoretical concepts? Are you knowledgeable about recent advances in your field and in related areas? Have you used a range of research methodologies and techniques appropriately in your field? Can you critically analyse and evaluate your findings (and those of others) in your area of interest? Can you summarise, document, report and reflect on your progress?</p>	<p>Yes Yes Yes Yes No Yes Yes MODERATE</p>	<p>I have rated this LO as moderate, as I have many of the skills required by a competent researcher, but have not applied them to my own research project. I am good at recognising, validating and critically analysing the work of others (!!) in my profession, but have not designed and planned a research project independently.</p>

LNA – Learning Outcome 5a)

Unit learning outcomes	What do I need to learn? (what areas of knowledge and experience do I need to address to achieve the learning outcomes (identified from gaps in my LNA))	What will I do to achieve this? (what activities will I need to undertake to gain this knowledge and experience –from work on the PD Programme, from my practice base or elsewhere)	What evidence will I provide to show that I have succeeded?
<p>Demonstrate a range of skills of a competent researcher, including accessing and using evidence, reflecting on practice, designing and planning a research project, presenting ideas cogently and researching and practising in an ethical and legal manner</p>	<ol style="list-style-type: none"> 1. Consider and apply a variety of skills to the research environment 2. Continually expand knowledge about recent advances in my field and in related areas 3. Practice developing and explaining theoretical concepts 4. Expand my understanding and practical experience in the research environment 5. Improve structured self reflection practices from summarising and reflecting to documenting and reporting. 	<ol style="list-style-type: none"> 1. Focus on recognising and validating problems, using evidence, thinking critically and independently and presenting information through the eyes of ‘a researcher’ as well as a clinician 2 - 3. Critically read and review recent publications in light of their theoretical concepts, and extending this line of thought to the development of my own related theoretical concepts 4 - 3. Seek and consider smaller scale research or data collection within my doctorate project, that may facilitate: <ul style="list-style-type: none"> •opportunity to practically apply research methodologies and techniques •understanding of the context in which research takes place •increased familiarity with the process of academic or commercial exploitation of research results •design and execute systems for the acquisition and collation of information through the effective use of appropriate resources and equipment 5. Document and report my critical reading, analyses, findings and self reflection, the setting of research goals, milestones and prioritisation of activities 	<ol style="list-style-type: none"> 1. Documented reflective examples of demonstration of these skills in the research environment / context: <ul style="list-style-type: none"> •Management •Personal effectiveness •Communication skills •Networking and teamworking •Career management 2 - 3. Compile bibliographical details of selected interesting publications, with a short reflective summary of: <ul style="list-style-type: none"> •theoretical concepts •my own related theoretical concepts 4 - 3. A pilot study or smaller data collection activity in preface / preparation to the larger research project 5. A reflective practice portfolio in ‘hard’ format

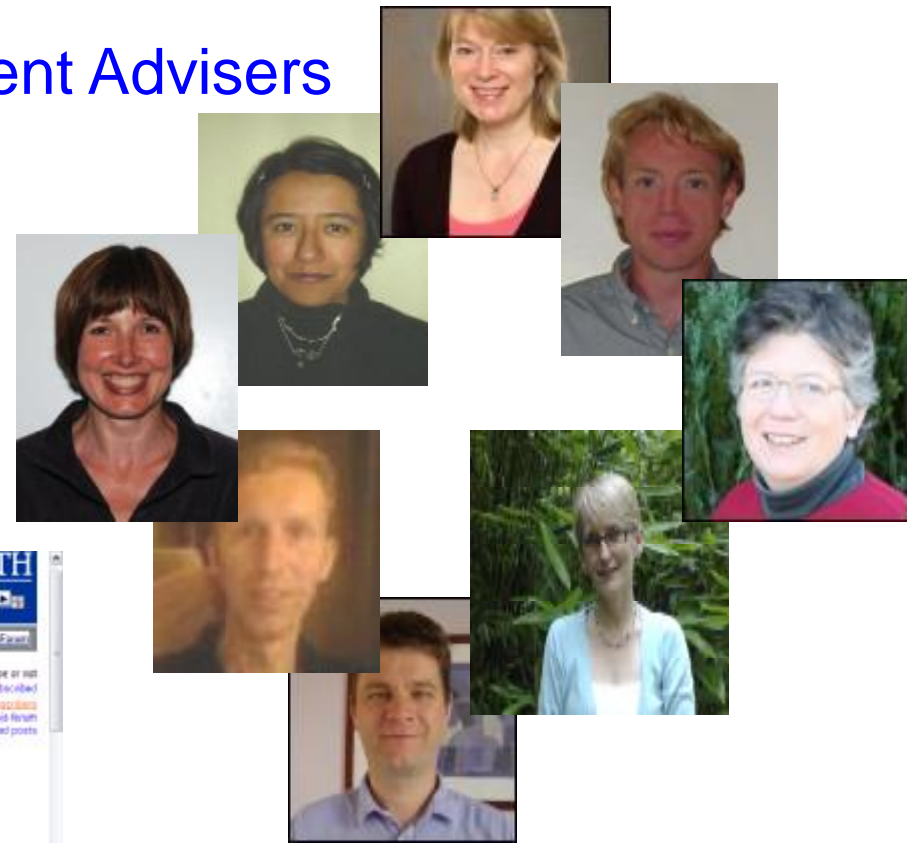
PDP –
Learning
Outcome 5a)


Activity: Having a go

- Working in your groups take a look at the examples of the LNA and PDP template and consider:
 - How have students engaged with these tools?
 - What advice would you give them about first steps for skills development?
 - How could (or would?) you use this approach in your own context?
- Ask one of your group to summarise your ideas
- You have 15 minutes for this task

Supporting the students' skills development

Professional Development Advisers



PD Online (Phase 1) 

Home > PD Phase 1 > Forums > Activity 1.2 - Just about anyone can do research - it's just common sense

Separate groups | All participants | This forum allows everyone to choose whether to subscribe or not

Activity 1.2 - Just about anyone can do research - it's just common sense!

Format: Group discussion

Timing: OLE 1 Week 1

Connection: Unit 5 section 1

Moderator: Christina + PDA's

When undertaking research there are a number of key skills which you will use on a regular basis - it is useful to identify what these are and practise them

Purpose: To identify the key skills associated with undertaking a piece of research

Task: What do you think are the key skills that are needed to be successful in research? Post a message on the discussion board suggesting ONE skill that you think would be really valuable for research, explaining why you think this is the case.

Response: Post messages that build on the suggestions of your colleagues. Together we should compile a list of 'key skills for the competent researcher'.

Resources:

- Joint Statement of Skills Training Requirements of Research Postgraduates
- Audit of Research Skills from Gina Wisker
- Audit of Research Skills from Vifae site

<http://people.bath.ac.uk/ole1/forums/subscribers.php?id=602>

Bespoke resources on PDOnline

PDA's



- Mentor support
 - respond to individual queries about *process* of conducting research
 - direct participants to the resources available on PD Online to develop novice researcher skills
- Participate in online discussions (units 5/8)
- Formative feedback on Research and Skills 'Milestones'
- Summative marking of portfolios
- Face to face meetings

Student Experiences

Makes more sense after experience of the process

skill acquisition may have happened anyway, not clear how PDP process assists with this

Difficult to get started 'in a vacuum'

The PDA role is key and feedback from them is essential

Better explanation of the process at the start – there's just so much to take in

developing critical self-awareness of myself as a novice researcher

Student comments 1

- 'It definitely got better and I ... think the tool is very simple and easy to use but I think its hard to make that tool work for you its difficult in the beginning... '
- 'I don't know they'd be very good self-critical in a sense so sometimes you'll mark yourself lower where in fact you probably are quite ok in that area but it's difficult to know where you are at that point in time because you don't know coming into your PD where you're going and want you're going to really need to focus on and concentrate on.'
- '... reflective writing was something I had never done before and that was something I really needed to work at and really come to grips with so that was easy for me to really get a sense of, but then there are other sections that were a little bit more you know can you do a literature search, yes but is it good enough'

Student comments 2

- 'I think the LNA is much more defined in saying can you do this, yes or no. Umm and then you can look at yourself and say well yeah I can but I could be better and I think that's where umm I thought the LNA was a better tool'
- 'It's absolutely essential because I don't as a novice researcher ...know exactly what skills you need to acquire. It's a way of really concentrating and bringing it down to what do I really have to focus on'
- 'Its been interesting to re-do the PDP and LNA you know at the start of phase 2 because you realise how much you have grown over that year'
- 'for me the bottom line with the PDP was that's its given me almost a diary for the year you know this is what I have to do sometime this year.... I have to get these things done, I have to get to a workshop on this kind of methodology and I have to speak to these people'

Pros and Cons of this approach

- Pros
 - Give clear direction for planning skills development
 - Acts as a 'Gantt chart' for the year's activities
 - Supports a critically self-reflective approach
 - A positive feedback loop – to measure one's own development
- Cons
 - What do the Roberts' criteria actually mean?
 - Time consuming for staff and needs their commitment
 - Time consuming for participants
 - Not all students engage with and value the process and this leads to variation (in feedback, in learning, etc)

Next steps...



- Continue with in-depth review of student feedback
- Collect PDAs views of supporting learners
- Introduce ‘developmental stages’ to the LNA/PDP tools
- Explore the importance of reflection as part of this process

So how do they fill their identified skills gaps?

An example of developing their knowledge and skills in research ethics:

Walking in their shoes