

A strategic approach to research supervision

A workshop for supervisors and potential supervisors

by

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**UNTL Centre for the Advancement of Teaching and
Learning**

July 2015

WORKSHOP OVERVIEW

As supervisors, we all need help and direction in how to train our research students—from students completing an undergraduate thesis right through to PhD level. Across the higher education sector, many supervisors are struggling. Drawing from Victoria University's *Demystifying Thesis Supervision* program and the Australian Office for Learning and Teaching's *Supervision of Higher Degree by Research Students: Supervisor Resource Book* ('*Supervisor Toolkit*'), this workshop provides a range of strategies for helping supervisors supervise better. well,.

Demystifying Thesis Supervision provides an opportunity to deepen and extend collective knowledge of what works and what doesn't work in supervising students doing research, which not only strengthens individual supervisory practice, but also contributes to a critical institutional community of practice. The *Supervisor Toolkit* was compiled to assist supervisors of Higher Degree by Research (HDR) students to develop the quality of their supervisory practice, but it is a valuable resource for anyone associated with supporting research students and seeking to better understand the supervision role, including research training administrators.

AN ACTIVITY TO START WITH

List the three most important things you expect from a student you are supervising in a research project:

1 _____

2 _____

3 _____

WHY DO I WANT TO SUPERVISE RESEARCH?

Answers from VU staff:

- I want to guide and assist students to make an original contribution to knowledge, to discover something new
- I love mentoring and the pedagogical challenge
- I feel joy in leading students to discover something new about themselves
- I want to help find solutions to real-world problems
- It's a good career move
- I have to do it—it's part of the job
- I want to patent an invention with a student and make lots of money!

There is no one answer—and no right answer

WHY IS THIS QUESTION IMPORTANT?

Because it encourages us to develop insight into why we do what we do—to:

- become aware of the *impact* of what we do—and how we do it
- reflect on our own motivations
- be aware of the complexity of life and the inevitability of making choices in life
- understand how the choices we make have an impact on others
- be sensitive to how our expectations might clash with the expectations of others
- work out ways for resolving the clash of expectations

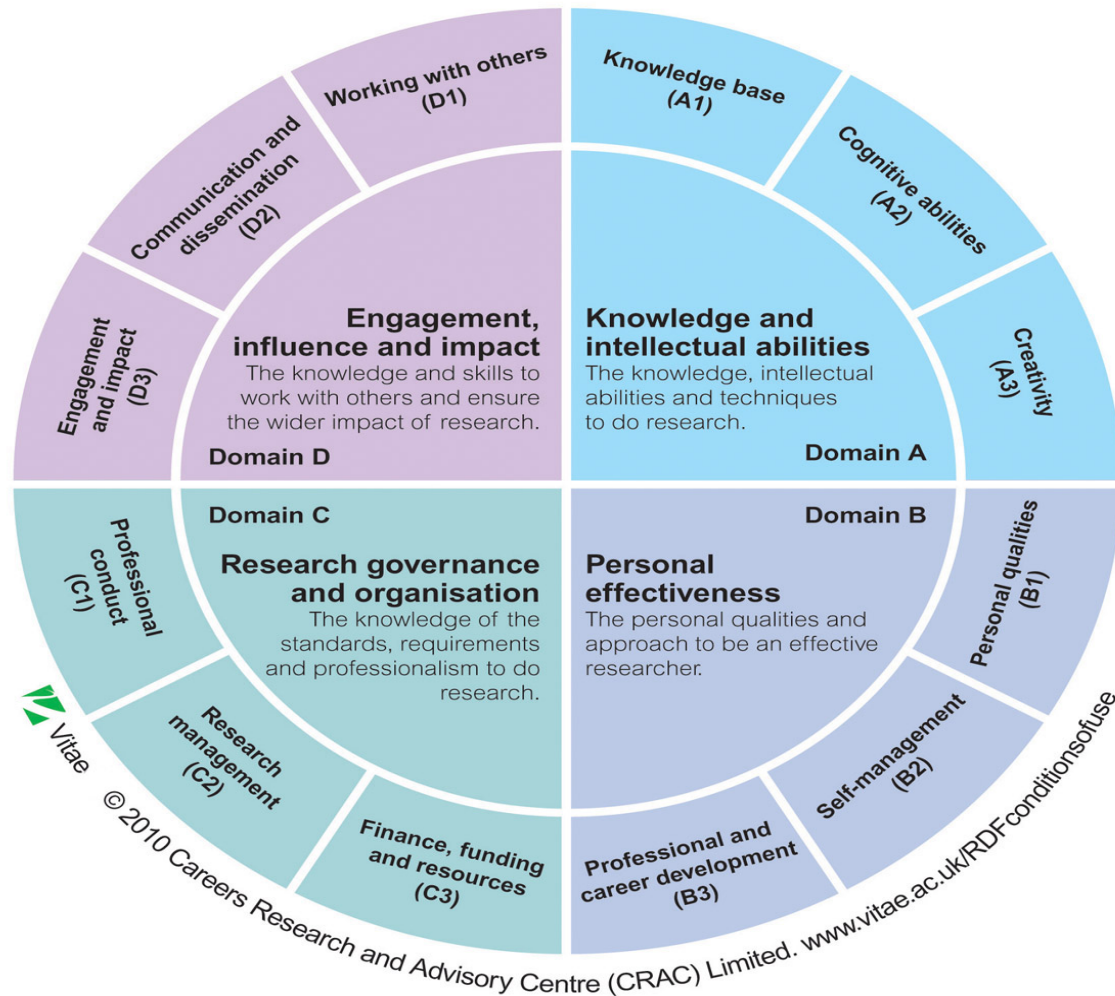
This is the pathway to successful completion of a research project

WE BUILD THE PATHWAYS

Awareness of the expectations we operate with, and how they might clash with the expectations of others, is an important foundation for building research pathways for our students

- Working at cross purposes reduces the chances of working together to achieve shared outcomes
- The beginning point for building research pathways for students is recognizing that the pathways are not beyond our control or external to us
- We—students and staff and institutions—***build*** the pathways in ***partnership***
- Pathways are not built by imposing our own model on someone else
- Telling staff how they ***have*** to supervise research, or students how they ***have*** to conduct research, is a recipe for resentment and resistance

RESEARCHER DEVELOPMENT FRAMEWORK



RESEARCHER DEVELOPMENT FRAMEWORK (RDF)

The UK-based *RDF* outlines four domains of researcher skills and attributes:

- Domain A, Knowledge and intellectual abilities
- Domain B, Personal effectiveness
- Domain C, Research governance and organisation
- Domain D, Engagement, influence and impact

Domains are further refined into 12 sub-domains and 36 sub-sub-domains

The *RDF* pays attention to both ***research outcomes*** and ***researcher development***

All the skills are important for candidates:

- to successfully complete their research
- to meet their longer-term career goals

RDF is geared to doctoral level, but the skills and attributes apply to coursework masters and undergraduate researchers

EMERGING THEMES FROM THE INTERNATIONAL EVIDENCE

Much of the evidence deals with doctoral level research training—but the underlying principles apply to coursework masters and undergraduate levels

- Research training is expected to provide a pathway to a broad range of graduate employment outcomes—not just academic and university research roles—requiring different styles of research training that focus on practice-led and practice-based learning.
- Stronger integration of research training into the overall university research effort
- More distributed models of supervision, with a focus on supervisory teams, group supervision as a pedagogy, as well as input of a broader range of experts in the guidance of the student (e.g. drawn from industry and the community)

THE PROBLEM?

The literature reflects growing national and international concern with the lack of systematic and pedagogically-informed approaches to graduate research training

- This reduces research outputs
- It also cripples the development of students as independent researchers
- There is recognition that supervision must move away from an individual-to-individual apprenticeship-based dependency relationship between the student and the 'God' supervisor
- That a broader range of input and expertise is valuable for the researcher's development

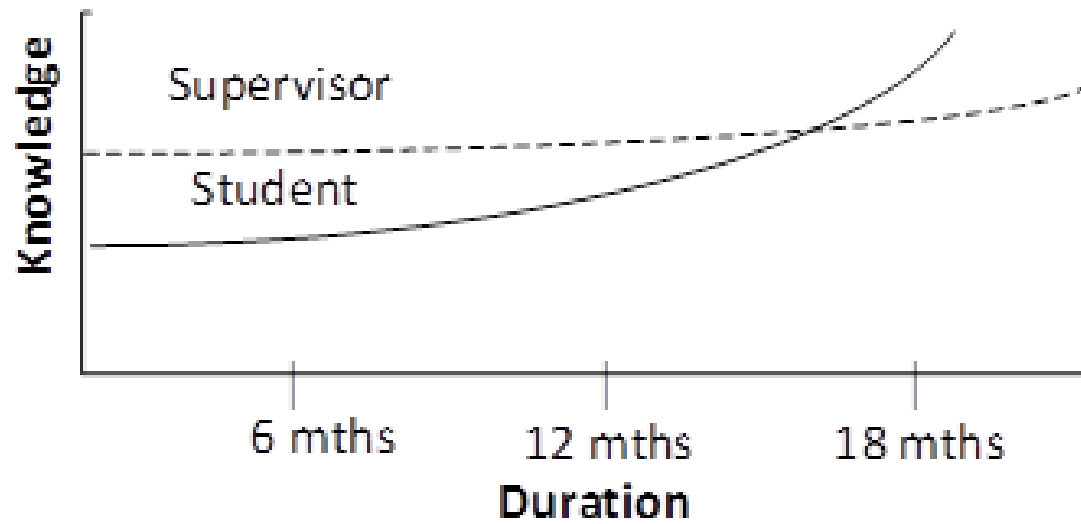
QUESTIONS TO ASK YOUR STUDENT

- What do you want to say?
- Why is it important?
- How can you best say it?
- Who is your intended audience?
- How will they best hear you?

MY RULE AS A SUPERVISOR

- To receive something in writing to inform every meeting: no writing, no meeting
- To receive an accompanying email listing what they would like to cover in the meeting
- Early meetings: it might be a series of dot points
- Then a review of an article they have read – or one or two pages outlining their approach to the problem
- For later meetings, dot points become an elaborated statement
- The discrete review becomes a literature review
- The page outlining their approach becomes a persuasive positioning of their own work within a conceptual framework
- From the beginning I can assess their writing strengths and needs as well as their intellectual strengths and weaknesses

THE SUPERVISOR-STUDENT RELATIONSHIP CHANGES OVER TIME



There comes a point when the student starts to become the expert

A CHANGING RELATIONSHIP

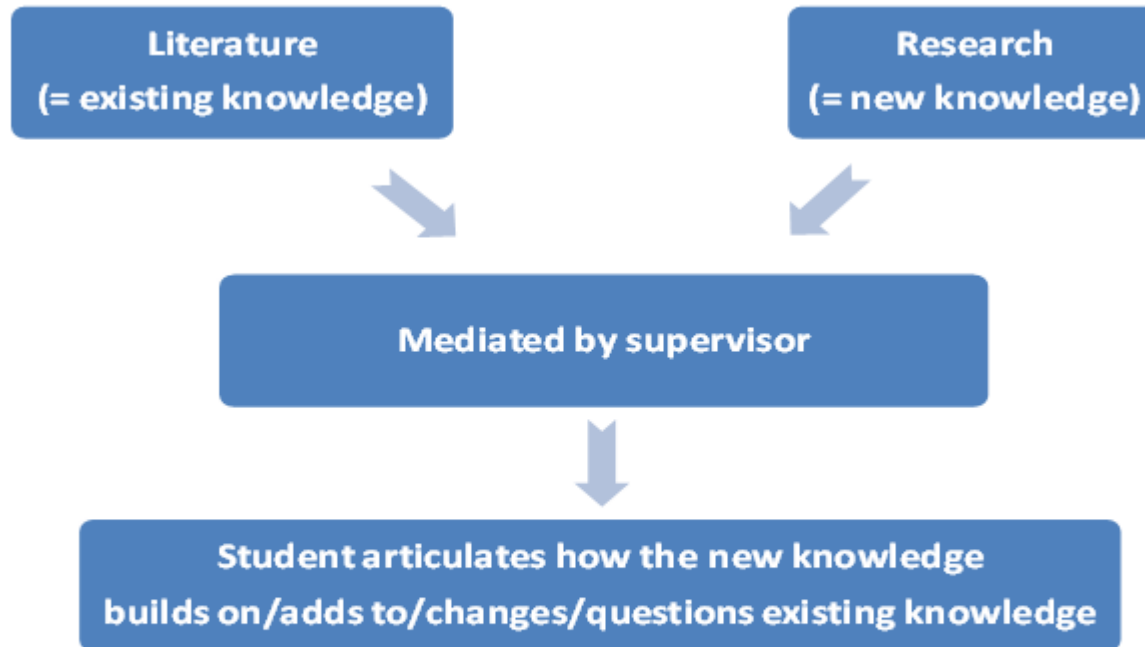
Empowering students means giving them control

- Not total control—after all, it is still a mutual and reciprocal relationship
- But we want them to assume increasing control:
 - Initially, the knowledge of the supervisor far surpasses that of the student
 - But as the student becomes familiar with the literature, frames a research question, undertakes the research and starts developing their argument, the student's knowledge overtakes that of the supervisor
- There comes a point when the student becomes an expert in his or her particular area of research—and this needs to be the aim of both the student and the supervisor

THE SUPERVISOR REMAINS RELEVANT THROUGHOUT THE PROCESS

- Supervisor still provides guidance through to the end e.g. in preparing for examination, or writing up results
- But relationship takes on a more collaborative, mentoring role
- Not all supervisors see it this way
- Some want to reproduce themselves through their students
- But our role is to facilitate development of research students as creative, critical, and autonomous intellectual risk-takers, able to push the boundaries of frontier research
- What follows are suggestions for how we can do this

HELPING THE STUDENT POSITION THEIR NEW KNOWLEDGE



USING A TEMPLATE TO CRITICALLY REVIEW THE LITERATURE

Step 1: Summarise the key points of the text you are reviewing in terms of:

- a) Research question/issue being investigated
- b) Scope of investigation/research (e.g. group(s) being investigated, size of sample, country or locality in which research was undertaken, etc.)
- c) Methodology
- d) Theoretical or conceptual framework
- e) Major findings

Step 2: Indicate as specifically as you can the ways in which your study is borrowing from/building on a, b, c, d and e. Acknowledging the work of others in this way *positions* your work in relation to the literature (existing knowledge).

Step 3: Way(s) in which your research goes beyond or differs from a, b, c, d and e—which points to what is new and original about your work vis-à-vis the literature (existing knowledge).

Step 4: Why we need this new information. How will it be significant? What are its practical as well as intellectual outcomes? Will it cause people to think about the issue/s in a new way?

Enter all this information briefly into template, which, because it uses the same categories, enables you to compare and contrast different texts, noting shared or different approaches to issues, or methods used. In this way, you can group the different texts into main schools of thought.

HELPING THE STUDENT RETHINK THE *RESEARCH QUESTION*

The research question defines the scope of the work the student has to do

Our job: help students achieve the right balance between being too broad and too narrow

Aim: a Research Question that encourages them to:

- read with purpose
- develop an appropriate methodology
- conduct the necessary research
- make an original contribution to knowledge

Research Question

Working with your student, ask the following questions:

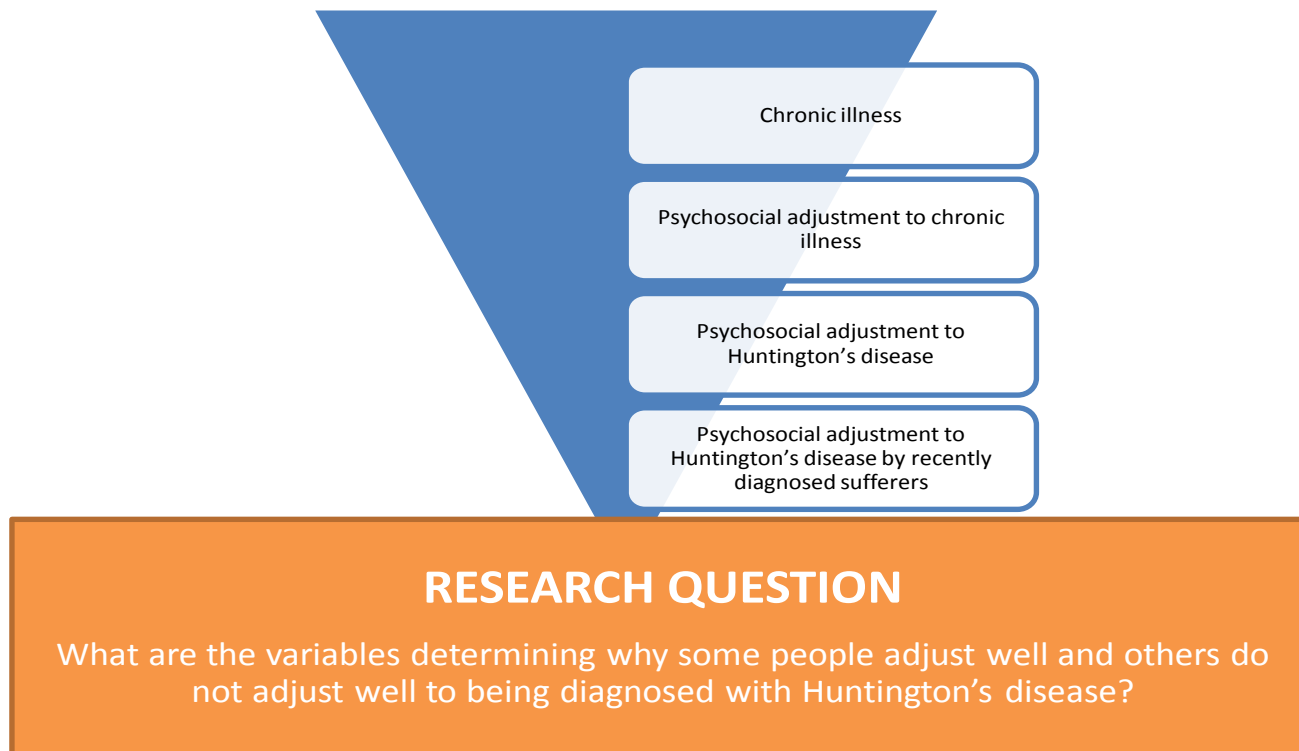
- **Is this a fruitful approach to the problem?**
- **Is it offering the possibility of new insights?**
- **Are there similar accounts or approaches?**
- **What else might you read?**
- **Is the emerging *Research Question* significant?**
- **Are there potentially more fruitful approaches?**

Handy Hints

- ***Research Question*** should be expressed in plain language
- It should be explained concisely
(Have students paste an A3 size copy of their *Research Question* above their desk, to be replaced with updated versions, which they can date & retain as a record of how the project developed)
- Make it an answerable Research Question e.g. not “Does the proposed filtering process stop membrane fouling?” but “What are the advantages and disadvantages of the proposed filtering process for stopping membrane fouling?”

HELPING THE STUDENT REFINE THE *RESEARCH QUESTION*

BEGINNING TOPIC



Entails two sub-questions

How did they respond? (narrative, descriptive)

[NOTE HOW A STRUCTURE IS BEGINNING TO EMERGE]

Why do they respond in these ways? (analysis/interpretation of factors)

Applying the model to a Timor-Leste example

TOPIC

Women's markets



Economic & social dimensions



Which specific market?



Whole market?

One specific street market?



Relative importance of economic & social motivations for stall-holders



RESEARCH QUESTION

To what extent does being a street vendor at Taibesse street market meet the social as well as economic needs of the women stall-holders?

Another Timor-Leste example

TOPIC

Cultural impact of modern education



Impact of primary school educational practices on traditional village leadership



Which village(s)?



Role of village leaders in teaching Tetun to village primary school children?



Competing educational models for village leaders to teach local language (e.g. from PNG, Vanuatu as well as local examples)



RESEARCH QUESTION

Drawing from international experience, what is the scope for village leaders to teach Tetun in village primary schools in Timor-Leste?

Other Timor-Leste topics

Imagine how you could use the same refining process to transform the following broad topics to precise (& manageable!) research questions:

- Impact of Dili urban lifestyle on inhabitants' health
- Sustainability of fishing practices in Timor-Leste
- Traditional vs modern state approaches to conflict resolution
- Land dispute settlement practices in Timor-Leste
- Logistics and supply chain management of coffee production in Timor-Leste:
- Role of women in Dili urban planning processes
- Skills development for hospitality industry workers in Timor-Leste
- Unemployed youth in Dili

HELPING THE STUDENT RETHINK THEORY

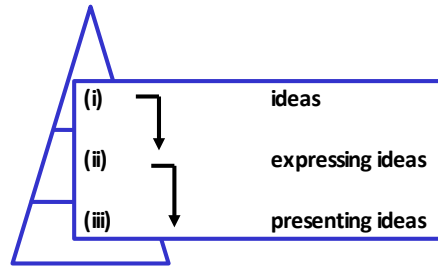
A strategy for helping students understand and use *theory*

Students imagine that they are researching the extent to which the position of working women has improved over the past decade

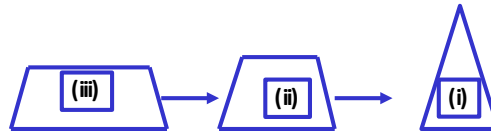
EVIDENCE	THEORY	THESIS
<ul style="list-style-type: none"> • Hours worked • regularity of work • security of employment • childcare provision • role in trade unions • wage rates • management responsibility • ownership of shares 	<p>Weberian:</p> <ul style="list-style-type: none"> class (income) status power 	<p>The position of women workers has improved significantly over the last decade</p>
	<p>Marxist: class is to be defined in terms of one's relationship (ownership & control) to the means of production</p>	<p>The position of women workers has not improved significantly over the last decade</p>
Same evidence	Different theories	Different thesis/argument

HELPING THE STUDENT TO THINK LIKE A READER

In terms of contribution to scholarship, the hierarchy is:



Yet, in terms of the reader's exposure to the ideas of the thesis, the order is reversed.



Imperative: ensure that there are no obstacles in



PROVIDING EFFECTIVE AND TIMELY FEEDBACK TO RESEARCH CANDIDATES

It's important to diagnose what the student's writing problem is:

- Having difficulty with clarifying/understanding what they are trying to say/write?
- Not knowing how to structure their thinking and writing?
- Inadequate knowledge of English grammar and expression?

Choosing the appropriate feedback

FEEDBACK FOCUSSING ON EXPRESSION

These are significant English expressions issues you need to deal with. Your first paragraph (which in your paper introduces the aims and context of your project) is usually the most important part of any paper for orientating the reader. I have found it very difficult to understand what you want to convey.

In **the** today's competitive market, companies no longer select their required suppliers just based on economic factors (Linton et al, 2007). In fact, by increasing the importance of sustainability they are trying to consider other sustainability criteria in the establishment of **dyadic** supplier buyer business **relationship**. On the other hand, **sustainability** concept **almost** is a new issue among other issues involved in Supply Chain Management. For this reason, a few research studies have been done in the area of supplier selection regarding sustainability (Bai & Sarkis, 2010; Kudla & Klaas-Wissing, 2012). This **research** tries to select supplier regarding sustainability **criteria** in supply chain management and aims to make a strategic and sustainable relation between organization and **supplier** in **the** today's uncertain market. In the real **conditions**, various risks of uncertainty and market fluctuations can affect the process of supplier selection. For this reason, a comprehensive model for supplier selection will be proposed which is **involved** all the risks and threats of uncertain **market** in time of order **allocation**.

The same expression problems are found throughout your paper, and need to be addressed.

Turning to your three research questions at the top of page 2, it would be helpful to have an overarching question, and then these more specific sub-questions. For instance, 'What factors determine sustainable supplier-buyer relationships in unstable **markets**?' Then you pose the specific questions that enable you to answer your primary question, such as: "What are the appropriate criteria for buyer selection of suppliers adhering to triple bottom-line sustainability?" - [and rephrase your second and third questions in a similar fashion].

Comment [R1]: Definite article not required.

Comment [R2]: Either indefinite article required or 'relationship' takes an 's'.

Comment [R3]: I do not know what this sentence is saying.

Comment [R4]: Article required.

Comment [R5]: What does it mean to be 'almost' a new issue?

Comment [R6]: That is, your research project, or the previously cited studies?

Comment [R7]: What does this mean: "supplier regarding sustainability criteria"?

Comment [R8]: Perhaps you go on to explain this, but what does it mean to "make a strategic and sustainable relation"?

Comment [R9]: Definite article not required.

Comment [R10]: You can say "In real conditions ...". If you say "In the real conditions ..." you need to add 'of something'.

Comment [R11]: Unclear. Do you mean "... which involves all the risks ..."?

Comment [R12]: Either you have to include an article ("an uncertain market") or 'markets' needs to be plural.

Comment [R13]: I don't know what "in time of order allocation" means.

FEEDBACK FOCUSING ON CONCEPTUAL DEVELOPMENT

From your review of the literature, there seems to have been considerable attention given to the management challenges of the NUM role, the inadequate preparation of NUMs for the role and (by implication) what skills are required for role. So I think **you need to articulate a more precise research question** which will distinguish your project from earlier studies and reports. For instance, **you might focus on differences in the perceptions of NUMs and other nurses of the skills that NUMs require and the perceptions of policy-makers and bodies responsible for training, and differences in how the different stakeholders view current training and professional development.** You develop the last item in the Aims section (where you refer to your aim of comparing the different perceptions) to become your principal focus. It doesn't have to be this, but as it currently reads you run the risk that it looks like you're covering areas that have already been researched and reported on.

FEEDBACK FOCUSING ON REFERENCING

There is large amount of research which employed either Hospital (Weissman et al, 2007) or Nursing (Needleman et al, 2002) (Twigg et al, 2011) (Shuldham et al, 2008) (Saulnier et al, 2001) workloads and a combination of both (Tibby et al, 2004) (Estabrooks et al, 2008) (Al-Kandari & Thomas, 2009, pp. 581 – 590) (Kalisch et al, 2011) (Al-Kandari & Thomas, 2008) (Yang, 2003) (Al-Kandari & Thomas, 2009, p. 3430). The patient outcomes are measured differently in the literature. These outcome are mainly patient adverse events (Weissman et al, 2007) (Needleman et al, 2002) (Shuldham et al, 2008) (Tibby et al, 2004) (Yang, 2003) (Twigg et al, 2011) (Al-Kandari & Thomas, 2009, pp. 581 – 590), nursing incompleteness tasks (Al-Kandari & Thomas, 2009, p. 3430), research utilization among patient care units (Estabrooks et al, 2008), Unit Nurse Staffing (Kalisch et al, 2011), Adverse nurse outcomes (Al-Kandari & Thomas, 2008) and excess need for nurse workload (Saulnier et al, 2001).

We can hardly see what you're saying because of the referencing. If we remove the references we can immediately see what you're trying to tell us in the text:

There is large amount of research which employed either Hospital or Nursing workloads and a combination of both. The patient outcomes are measured differently in the literature. These outcome are mainly patient adverse events, nursing incompleteness tasks, research utilization among patient care units, Unit Nurse Staffing, Adverse nurse outcomes and excess need for nurse workload.

TRAINING RESEARCH SUPERVISORS

At VU, supervisors are encouraged to apply *Demystify your thesis* framework and strategies via:

- *Demystify thesis supervision*, a two-day intensive program that parallels the *Demystify your thesis* student program
- *Supervising student research*, a practice-led unit in VU's Graduate Certificate of Tertiary Education, for early career academics who want to be registered as research supervisors

Supervisors are also introduced to *Supervision of Higher Degree by Research Students: Supervisor Resource Book ('Supervisor Toolkit')*, compiled by ten research trainers from five Australian universities—including Helen Borland and Ron Adams from Victoria University

'SUPERVISOR TOOLKIT'

Australian Office for Learning and Teaching (OLT), *Supervision of Higher Degree by Research Students: Supervisor Resource Book ('Supervisor Toolkit')*

- 69 'tools' give supervisors relevant knowledge and means to improve supervisory practice
- But the *Toolkit* can also be used to:
 - provide materials that explore the dilemmas of supervision practice to stimulate individual thought and collegiate discussion in communities of practice relating to HDR supervision
 - support formal university seminars aimed at improving the practice of supervisors and those associated with supporting HDR students
 - support online courses aimed at improving the practice of supervisors

The *Toolkit* targets supervisors of HDR students—but many of the tools can be adapted for coursework masters and undergraduate research

WHAT'S COVERED IN THE 'SUPERVISOR TOOLKIT'

Uses project management principles to structure the life cycle of a research project under ten key areas of supervision practice:

- Selecting for success
- Setting expectations
- Achieving confirmation
- Doing the research
- Finalising the thesis
- Managing progress
- Managing relationships with the student
- Supervisor development
- Early exit strategies
- Completion and career

E.g. TOOL H1.1 'TOP TIPS FOR SUPERVISORS'

Tool H1.1 'Top tips for supervisors': B. Setting expectations and getting agreement:

- Set clear and realistic boundaries for the supervisor-student relationship (e.g. number of drafts to be read)
- Set out the ground rules regarding authorship at the beginning of the HDR process
- Get the student writing early and often
- Develop writing support and standards
- Help the student to get any other needed help with writing as soon as possible
- Cultivate the student's skill with language
- Provide/facilitate opportunities for the student to develop other career-relevant academic and professional skills

These tips target supervisors of HDR students—but they are equally relevant to supervisors of coursework masters and undergraduate research

ACCESSING THE 'SUPERVISOR TOOLKIT'

OLT RESEARCH SUPERVISION PROJECT SITE

<http://altcresearchsupervisionproject.ning.com/>

- Offers free access to the 70+ (and growing!) tools
- Provides background on the development of each of the tools
- Gives further guidance on their use and evaluation
- Information on other resources to assist research supervision

POSSIBLE VU-UNTL COLLABORATIVE PROJECTS

In the *Finding Pathways in Education* conference, I nominated four potential joint projects for UNTL and VU:

1. Adapting *Demystify your thesis* to the needs of coursework masters and undergraduate research students
2. Adapting the *Supervisor Toolkit* to the needs of coursework masters and undergraduate research supervisors
3. Adapting the Graduate Certificate in Education *Supervising research students* to the needs of UNTL academics wanting to supervise
4. Adapting the *Researcher Development Framework* to the needs of coursework masters and undergraduate research students

This is an opportunity for VU and UNTL staff to work together to build relevant and sustainable research pathways for their students